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LABOUR MARKET AND OTHER IMPLICATIONS
OF
IMMIGRATION POLICY FOR ONTARIO

William L. Marr

November, 1976



Ontario Economic Council

Toronto, Ontario



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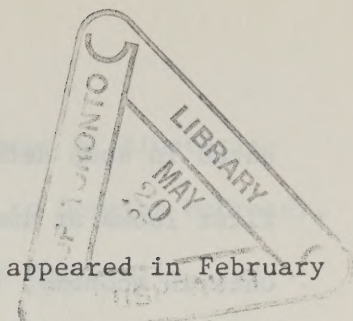
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This paper reflects the views of the author and not necessarily those of the Ontario Economic Council.

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Preface and Acknowledgements



The so-called Green Paper on Immigration which appeared in February 1975 provides a useful backdrop for the study of an important and emotional topic, namely Canadian immigration policy. In this area where there is often more heat than light, an informed discussion is important before any long lasting legislation passes Parliament and new policies are put in place. Since Ontario received about 60% of all post-1946 Canadian immigrants, the political leaders of that province must be aware of the characteristics of these people and of their effects on all aspects of life in that province. The British North America Act gives the Ontario Government the right to have an immigration policy and to actively solicit or discourage immigration; Ontario along with Quebec have perhaps been the most active provinces in this area of interest, and likely will continue to be due to their relative attractive power on immigrants and the Canadian born alike.

While this report deals with many of the effects of immigration on the Ontario economy and its educational and health service systems (the latter to a lesser extent) and brings out many of the characteristics of Ontario's immigrant population, all aspects of the areas are not included. The short time period in which the study was completed and the manpower available to the author were constraining. The early chapters of this study outline the history of immigration policy in Canada, analyze the Green Paper on Immigration (or at least the first volume), and set out the likely benefits and costs of immigration to aggregate supply, aggregate demand, inflation and unemployment. The section on benefits and costs will suggest a number of sectors in the Ontario economy where immigrants may have benefits or/and costs. Three of these are investi-

gated in some detail: the labour market, education, and health. The first looks at immigration as a supplier of labour to all parts of the Ontario economy; the last two view migrants as users of education and health services. Are immigrants more likely to be found in one secondary or elementary school programme than in another? What proportion of the student body in Ontario's colleges and universities are immigrants? Do immigrants have a higher propensity to use certain health services than the Canadian born? These and other questions are addressed in the last chapters of the study.

It is impossible in a short paragraph to acknowledge everyone who provided inputs to this study; an apology is made now to anyone who is omitted. The financial assistance and suggestions on content came from the Ontario Economic Council, and especially Colin Hindle, Ron McDougall, and P. Manga. Thanks must also be extended to those who attended the two review seminars and provided comments as the study evolved. Much of the data compilation would have been impossible without the help of various research assistants, namely Susan Hackborn, Dorothy Edmonds, Bob Littell, Alan Marshall, and George Barros. Computer access and assistance was graciously provided by Wilfrid Laurier University computer centre and by Data Resources Incorporated in Toronto; Bill Empey of Data Resources was invaluable in the simulations of Ontario's economy. Many people provided data along the way: Allison Stead, Statistics Canada; Lisi Rollins, Census Division, Statistics Canada; G.E. White, Department of Manpower and Immigration; Veronika von Nostity, Department of Manpower and Immigration; Janet Abelson, Statistics Canada; Ed Wright, Board of Education of City of Toronto; Martin Abrams, Department of Manpower and Immigration; W.J. Stone, Department of Manpower and Immigration; Majella Quinn, Statistics Canada; Alison Hegarty, Ministry of

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All drafts of this study were typed by Judie DeGuire; her efficiency and attention to detail, especially with the numerous tables, kept the manuscript writing accurate and continuous.

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Chapter I

Canadian Immigration Policy

Evolution of Canada's Immigration Policy

A historical approach, by tracing government legislation, should help gain insight into immigration problems and perhaps explain why it has always been in a state of transition and controversy. Table 1 presents the components of Canada's population growth since Confederation. Immigration has been over one billion in four of the ten decades, but made significant contributions to Canada's population growth in the periods 1901 to 1911 and since 1951. It is the contention in the rest of this chapter that these ebbs and flows were the result of immigration policy and its interpretation in day to day dealings. A cursory examination of Table 1 illustrates that immigration was relatively large during times when economic conditions in Canada were "good" (1901-11, 1951-61, 1961-71) and low when they were not (1881-91, 1891-1901, 1931-41). This is not to deny that factors other than economic conditions in Canada influenced immigration. This is not just chance; policy has had this aspect as one long term goal. Studies of the more distant as well as the recent past confirm this (Marr, 1975; Caves and Holton, 1959).

The individual provinces made the early legislation (1794-1864). Confederation saw not only Canada's first federal legislation, the British North America Act, Section 95, but also a more clearly defined approach to immigration. This Act gave shared jurisdiction and responsibility to Federal and Provincial governments, with the Federal government having supreme authority. The Act also defined the obligations of the companies transporting immigrants to Canada. Provisions were made

TABLE 1

Components of Growth of the Canadian Population for Intercensal Intervals
Since 1871 (in Thousands)

Census Interval	Population at Beginning of the Interval	Births	Deaths	Natural Increase	Immigration	Emigration	Net Migration
1966-1971	20,015	1,845	771	1,074	838	359	479
1961-1966	18,238	2,249	731	1,518	539	280	259
1951-1961	14,009	4,468	1,320	3,148	1,543	462	1,081
1941-1951	11,507	3,184	1,214	1,970	548	379	169
1931-1941	10,377	2,294	1,072	1,222	150	242	-92
1921-1931	8,788	2,415	1,055	1,360	1,203	974	229
1911-1921	7,207	2,338	988	1,350	1,612	1,381	231
1901-1911	5,371	1,931	811	1,120	1,759	1,043	716
1891-1901	4,833	1,546	828	718	326	506	-180
1881-1891	4,325	1,538	824	714	903	1,109	-206
1871-1881	3,689	1,477	754	723	353	440	-87

Note: Emigration figures are estimates only and include residual and error values.

Source: Kubat and Thornton, 18.

for the welfare of immigrants from the time of their arrival until they reached their destination. Quarantine stations were established and provisions were made for Immigration offices and agents in Canada, England and some European countries. A head tax was imposed to cover poverty-stricken immigrant expenses. While the Act did not prohibit any race or ethnic group, in 1872 an amendment to the Act prohibited criminals and other "vicious classes". An Order-In-Council in 1879 also prohibited indigent immigrants, and in 1885 a further Act restricted and regulated Chinese Immigration. The method of restriction was a head tax of \$50.00, an amount few Chinese immigrants could afford. By 1900 the amount was doubled and by 1903 it had risen to \$500.00 (Green Paper, Vol. 2, 7). In 1902 a further amendment prohibited "diseased persons" from immigrating to Canada.

In 1906 the Canadian government implemented greatly revised legislation. This amendment called for border control and patrol between the United States and Canada. Restricted classes were defined in greater detail. Immigrants who became infirm, public charges or criminals could be deported. It also required the immigrant to have "landing money", \$25.00 in the summer and \$50.00 during the winter months (Green Paper, Vol. 2, 8). However, this requirement could be waived in certain cases, namely farm workers, servants and in the case of close relatives joining an already "established" immigrant. Boards of Inquiry were set up to hear appeals and pleas concerning border line people wishing to immigrate.

Amendments of 1907 and 1908 called for penalties for "illegal immigrants" and the "Master" of the ship that had transported them to Canada. Another new requirement was the "direct continuous journey from their native land to Canada". Asian immigrants, with the exception of

Chinese and Japanese, were required to have \$200.00 "landing money".

In 1910 a further act required immigrants to have passports and penal certificates. There were further additions to the prohibited classes, mainly on medical grounds and the "probability" of those nationalities "unlikely to assimilate" into the Canadian culture or those people who might add to unemployment, or otherwise "lower the standard of national life". These prohibitions and restrictions dating from at least 1885 point out the fact that Canada has regulated immigration throughout most of its history. The present debate over new regulations has a great deal of historical precedent. In a historical context, Canada has for one hundred years viewed immigration for some as a privilege rather than a right.

Several significant factors should be taken into consideration during the period from 1896 to 1914. Until this time immigration was strongly linked to agriculture. In fact immigration originally came under the jurisdiction of the Department of Labour. Immigration was seen as providing labour for the growth and development of the large areas of undeveloped land in Canada. By 1914 most of the good homesteading land had been allotted and the labour force was large enough to meet demands. During this period three million people immigrated to Canada with approximately one and a half million having arrived in a four-year period from 1910 to 1913 (Parai, 1965, 132). It is uncertain if this was the major factor or the intervention of the First World War, but regardless, immigration to Canada virtually ceased by 1914.

Although immigration was at a standstill, 1917 saw the inception of a new department for immigration: the Department of Immigration and Colonization.

The post-war period saw a general recession. Unemployment in-

creased and there was a great deal of general labour dissatisfaction. Public opinion appeared to reflect feelings of resentment regarding immigration and government officials became cautious and indecisive. New regulations in 1918 and 1919 forbid entry to Canada for enemy aliens (enemy aliens during the war) as well as anyone not able to prove exemption from military service. Doukhobors, Mennonites and Hutterites, alcoholics, illiterates and conspirators were also prohibited, along with unskilled and skilled workers wanting to live in British Columbia. This prohibition on immigrants settling in a particular province lends historical precedent for the current debate about whether immigrants can be required to live, at least for a time, in predetermined parts of Canada where the available jobs are presumably located. Landing money was increased another \$50.00 (now \$250.00) (Green Paper, Vol. 2, 12). Legislation made possible the deportation of non-Canadian strike leaders.

By 1922-23 enemy aliens, Hutterites, and Mennonites became eligible for Canadian immigration. The landing money requirement was withdrawn except for the very few Asiatic people allowed entry to Canada. It is worthy of note that 1923 is also the year the Canadian government adopted a humanitarian approach to some immigration by allowing Jewish refugees from Romania to immigrate to Canada without proper qualifications, if they were sponsored by the Jewish Immigrant Aid Society or if they had family members residing in Canada.

By 1923, Canada was once again encouraging immigration from Great Britain, Northern Europe and the United States. The emphasis had shifted from quantitative to qualitative. The next few years saw numerous new offices being opened abroad. Passage was subsidized and qualifying medical examinations were introduced. Land settlers were given increased aid. In 1926 Doukhobors were deemed admissable as well

as numerous other European nationalities. In 1928 the act allowing the deportation of strike leaders was revoked.

In 1929 a world-wide recession began; this led to the Canadian Government imposing tighter restrictions. Only family members joining an already established immigrant husband or father were allowed entry, as well as a limited number of farmers, British subjects and American citizens, if they were self-supporting. By 1930 immigration had virtually come to a stand still once again. Immigration offices abroad were closed and all immigration was discouraged. In 1936 immigration became a branch of the Department of Mines and Resources.

The beginning of the Second World War (1939) prompted new legislation that banned the entrance of enemy aliens. During the war period immigration was once again at a stand still. However, renewed interest in immigration followed in the post-war period. As a first manifestation, the Standing Committee of the Senate on Immigration and Labour was appointed in 1946 (Hawkins, 82-85). Its most important contributions occurred between 1946 and 1949 although it continued until 1953. It recommended a continual and "well considered and sustained" policy that was far sighted, allowing enough immigration to meet labour demands but not in such quantities to increase unemployment or decrease the Canadian standard of living or jeopardize the Canadian economy. The Committee studied the attitudes of the general public, paying special attention to residents of Quebec. There appeared to be mixed feelings of anxiety and fear with enthusiasm and assurance concerning employment and the economy.

The Committee also recommended more Canadian involvement in helping refugees and displaced persons. The post-war period saw some applications of this. During four months of 1968 the Canadian Government relaxed examination standards and provided financial aid which allowed

numerous Czechoslovakian refugees to immigrate to Canada. In 1969 Tibetan refugees in India and Jews from Iraq were also accorded special entry privileges. In 1970 a new policy allowed a refugee, as defined by the United Nations, special entry privileges. Under this policy, in 1972, Asians expelled from Uganada, were promptly dealt with.

On May 1, 1947 MacKenzie King addressed the House of Commons regarding the government's policy on immigration and his statement formed the basis of policy until 1962. Summarized, it was for

- (1) Immigration for population growth.
- (2) Immigration for economic development.
- (3) Immigration must be selective.
- (4) Immigration must be related to absorptive capacity.
- (5) Immigration is a matter of domestic policy. Its control is a national prerogative.
- (6) Immigration must not distort the present character of the Canadian population. The restriction on Asiatic Immigration must remain (Hawkins, 92-93).

On November 26, 1949 the new Prime Minister, Louis St. Laurent, established a separate Department of Citizenship and Immigration. Immigrants and Canadian Indians were both under the control of this Department which opened officially on January 18, 1950.

Because literally thousands of would-be immigrants were not admissible under the present policy and also because of pressure delivered by the Multiracial Commonwealth to the Liberal government, due to its discrimination, new legislation was passed on June 9, 1950. Under this Act preference was given to those from the United Kingdom, France and the United States. Blacks were only admitted if they were the close family members of Canadian residents.

The admissible classes of European immigrants were enlarged to include any immigrant "who satisfies the Minister that he is a suitable immigrant having regard to the climatic, the social, education, industrial, labour or other conditions or requirements of Canada; and that he is not undesirable owing to his probable inability to become readily adopted and integrated into the life of the Canadian community and to assume the duties of Canadian citizenship within a reasonable time after his entry" (Hawkins, 99). An Order-In-Council of September 14, 1950 allowed Germans to apply for immigration on an equal basis as other Europeans. January 1951 saw the limited admission of Asian immigrants, 50 from Ceylon, 100 from Pakistan and 150 from India in addition to nuclear family members of Canadian residents (Hawkins, 99). In July 1952 Japanese were no longer classified as enemy aliens; this long classification remarks on the internment of Japanese Canadians during World War II.

Undoubtedly, taking an overview of immigration, a major breakthrough in policy is the Immigration Act of 1952. It gave almost total power over immigrants and immigration to the officials of Citizenship and Immigration. Totality aptly describes the minister's power. He could revoke any previous decision by other officials, Court, Judge or Immigration Appeal Board regarding entry or deportation. The immigrant had no refuge from his power. Incredible bureaucratic problems ensued. All marginal cases were turned over to the minister for his decision. This was time consuming and tended to slow the entire process. This Act gave a comprehensive list of prohibited classes on grounds of:

- "1. Nationality, citizenship, ethnic group, occupation, class, or geographical area of origin;
2. Peculiar customs, habits, modes of life, or methods of holding

property;

3. Unsuitability having regard to the climate, economic, social, industrial, educational, labour, health, or other conditions or requirements existing temporarily or otherwise, in Canada or in the area or country from or through which such persons come to Canada; or
4. Probable inability to become readily assimilated or to assume the duties and responsibilities of Canadian citizenship within a reasonable time after admission." (Hawkins, 102)

This new act also defined the right for examination of a prospective immigrant. The deficiencies and need for revision of this Act were soon apparent. Social and political change are slow and this Act (which is still under revision) is a flagrant example. Although regulations have been changed the Act remains unchanged due to the numerous anticipated "political" and "public" difficulties of having a new Act passed.

In 1955 Mr. Pickersgill, the Minister in charge of Immigration, gave a rather strong indication of the governments attitude toward Asian immigration. He was asked why it was necessary to employ 12 people in New Delhi when only 150 people were allowed to immigrate to Canada each year. He replied sincerely that the true purpose of the office was "for the improvement of commonwealth relations" not "for the purpose of getting immigrants" (Hawkins, 101). In 1955 immigration policy allowed limited numbers of domestic workers from the Caribbean to immigrate to Canada. 1956 saw the establishment of "family assistance" to immigrant families.

In 1962 long overdue changes were instituted. Discrimination was outlawed. Skill or employment eligibility became the major criteria for independent immigration. The only remaining concession for Europeans

was the ability to sponsor a wider range of relatives. The new revisions also amplified the powers of the Immigrations Appeal Board.

Government officials began to focus their attention on policy and administration difficulties with immigration in the early sixties. Several Royal Commissions were established. The Glassco Commission made recommendations that had far reaching effects on immigration management. It recommended a major administrative shuffle. The Commission also pointed out the lack of effective communication and services between the various departments engaged in overseas services; it was described as "painful", "wasteful" and "compartmentalization". In 1964 public pressure and press allegations concerning charges of unlawfull and unfair detention and lack of legal counsel, concerning arrest, prosecution, and deportation of illegal immigrants, prompted the Minister of Justice, Guy Favreau, to ask Joseph Sedgwick, a Toronto lawyer, to make inquiries and any necessary recommendations concerning this matter. Mr. Sedgwick found only one case of an immigrant being uninformed of his right to legal counsel. All other cases were "above reproach" (Hawkins, 145).

His first report recommended stronger enforcement and prosecution of violations of Section 50 of the Immigration Act by deserting seamen. He also recommended changes in the Act regarding detention of illegal immigrants. Part II of the Sedgwick Report recommended revisions in the Act regarding deportation of the mentally ill, those who were or likely to become public charges, and the people in Canada who help or alert illegal immigrants. He felt deportation of permanent residents and the granting of residency to illegal immigrants with security screening, should be the exclusive prerogative of the Appeal Board. He also recommended the deletion of: (1) Section 39 (legal consultation) of the

Act, and instead the Supreme Court of Canada would have final authority; and (2) the issuing of orders-in-council in special circumstances. Another recommendation concerned registration and finger printing of aliens (Hawkins, 148).

On August 14, 1964 the Minister of Citizenship and Immigration Rene Tremblay announced revisions in this field with emphasis on improving administration. The Department would be divided into 5 divisions:

- (1) Policy and Planning
- (2) Overseas Service
- (3) Canadian Service
- (4) Special Service
- (5) Support Service

The supreme power of the Minister would be reduced and divided between several senior officials. Overseas Services were greatly revised. Nine new regional offices were established in continental Europe to accommodate the people who wished to immigrate to Canada, in the 16 countries under their supervision. An increased promotional campaign abroad was introduced. Improved working conditions, facilities, and Immigration offices were established. Additional funds were allocated to improve these services. There was a move to put foreign service employees on an equal basis of opportunity and prestige with public service employees. Although Mr. Tremblay expressed awareness of the problems and limited admission of Chinese immigrants, no major changes were undertaken.

Although an Immigration Appeal Board was set up in 1952 it was not until the Immigration Appeal Board Act became law in March of 1967 that it became really effective. This Board was separate and independent and it was given the power to make final decisions except by appeal to the

Supreme Court. The Immigration Appeal Board soon found itself in serious difficulties. One major problem concerned "visitors" applying for landed immigrant status. Immigrants without sufficient qualifications to immigrate to Canada came as visitors and then applied for landing. If their application was rejected they would then insist on deportation proceedings and then appeal to the Board. The Board was unable to keep up with the heavy case load causing long delays. Loss of control concerning Immigration Policy and Program followed. By 1972 more than one third of the immigrants in Canada had not met the official requirements (Green Paper, Vol. 2, 36). In October of that year the government ended visitors rights to apply for landing status. This Bill gave the Appeal Board increased power to handle appeals and to reduce the right to appeal.

On December 17, 1965, the Prime Minister announced the formation of a new Department of Manpower and Immigration. It was to have three divisions, Program Development, Manpower, and Immigration. This new department would have exclusive dealings with matters pertaining to immigration. Special advisors, the Economic Council of Canada, the Glassco Commission and the Senate Committee on Manpower, had contributed to the reconstruction of this department. Government officials were finally aware of the vast importance of immigration on the future of the Canadian economy and growth, and the link between immigration and manpower was now complete. This is one major aspect of Canada's long term policy in immigration and dates from the nineteenth century when agricultural workers were given special emphasis under the Department of Agriculture. This labour market orientation in immigration policy ranks ahead of the other long term policy, namely special rules for Asian emigrants, in that it has extended up to the present time.

The White Paper of 1966 proposed more efficient control systems, particularly over sponsored immigration, and the end of racial discrimination. The White Paper also pointed out the overlapping services and policies between Immigration and Manpower.

1967 saw the introduction of many new regulations, among others, a point system for the selection of immigrants. Points are based on age, employment, education, relatives in Canada and fluency in French and English and other factors. The prospective independent immigrant must get 50 from a possible 100 points to qualify. One of the drawbacks to this system is that it may not relate to the demand for specific skills. A highly educated person whose skill is in low demand is more likely to qualify for entry, than an uneducated person whose skill is in strong demand. Under the new laws of 1967, racial discrimination was at last eliminated for all classes of immigrants. A new classification was created, "nominated relative", for nondependent relatives. Provisions were also made to allow visitors to Canada to apply for landed immigrant status, without leaving the country, if they were qualified.

New legislation called the Canada Manpower and Immigration Council Act was passed on December 21, 1967. The aim of this act was "the effective utilization and development of manpower resources in Canada, including immigrants to Canada and their adjustment to Canadian life" (Hawkins, 168). It created a Canada Manpower and Immigration Council and four new Advisory Boards: (1) Adult Occupational Training; (2) Adjustment of Immigrants; (3) Coordination of Rehabilitation Services for Disabled Persons; and (4) Manpower and Immigration Research (Hawkins, 167-168). The Council advised the minister in all areas of his administration.

The first meeting for the Council and Advisory Boards was in July

1969. Although the Council and Advisory Boards have added valuable knowledge and advice in the area of immigration it has also added to the complex bureaucracy regarding immigration.

Existing Immigration Policy

In the day to day routine of immigration matters, the officer in charge must select the persons who will be admissable to Canada from foreign countries. This selection should be predicated on current governmental objectives and policies, otherwise the selection process becomes only ad hoc and random as to criteria used. The present broad objective is to select so as to serve the economic, social and cultural interests of Canada (Green Paper, Vol. 2, 39). Some operational definitions are given to this general goal by specific objectives (Green Paper, Vol. 2, 39-40):

- 1) to promote dependent and family reunion if applicant is qualified;
- 2) to allow entry where there is a demand for labour;
- 3) to look with favour on workers in continuing demand and on entrepreneurs with financial and educational means to succeed;
- 4) to admit refugees likely to become successfully established;
- 5) to admit people who have the financial and other attributes for successful establishment; and
- 6) to counsel immigrants fully about living and working conditions in Canada.

The evolution of immigration policy shows that most of these objectives have a long tradition in Canadian policy. One further goal does not have such a long history, namely non-discrimination. For practical purposes, it dates only from the policy change of 1962 and then formalized with the point system in 1967. Immigration authorities would point out that this is not a commitment to provide equal access to immigration facilities for all potential migrants no matter where they might reside.

Under these objectives, different criteria are used to decide if the applicant serves the economic, social and cultural interests of Canada depending on whether the immigrant will be wholly independent, wholly dependent on someone in Canada, or partly independent and partly dependent.

The wholly independent (or so-called independent applicant or unsponsored immigrant) base their successful selection on their own qualifications. The Regulations of 1967 established nine factors for appraisal: education and training, personal qualities, occupational demand, occupational skill, age, arranged employment, knowledge of official languages, relative in Canada, area of destination. Out of the one hundred potential points available for the factors together, an applicant is expected to receive fifty points for approval. Since the authorities want immigration to be geared to conditions in Canada, the values of some factors vary with economic conditions. In February, 1975, an amendment was made whereby an applicant must receive at least one point on one of the criteria related to securing Canadian employment. A brief description of the points in each factor and the weighting used may be found in the Green Paper (Vol. 2, 43-49) and need not be reproduced here.

Besides obtaining at least fifty out of the one hundred points, the selection officer must be assured that the independent applicant has the means to live in Canada until he and his family is established. This could be a highly subjective criterion for selection. Discretion may also come into an applicant's case when the authorities believe that the assessed points do not reflect the person's circumstances. These circumstances are likely to be economic in nature, rather than compassionate or humanitarian, and the considerations must not have been taken

into full account under the nine factors. Discretion can be used to admit people with less than fifty points and to disallow entry for persons with more than fifty points.

The wholly dependent (or sponsored dependents) base their successful selection on the principle of reunion of families. This group does not include the spouse and unmarried children less than twenty-one years of age of an independent applicant; these people are admitted along with the independent applicant. Any Canadian citizen or landed immigrant may sponsor the entry of the following close relatives: the husband or wife, the fiance or fiancée, an unmarried son or daughter less than 21 years of age, a parent or grandparent sixty years of age or more, an orphan brother, sister, nephew, niece or grandchild less than eighteen years of age, etc. (Green Paper, Vol. 2, 52). Also, a person with no close relatives in Canada, and no relative abroad eligible for sponsorship, may sponsor, once in his lifetime, one relative of any degree to come to Canada and be with him.

Since sponsors are asked to undertake responsibility for their relatives' care, no economic requirements for acceptance are set. In the case of some minor children and adoption, the rules of and consent from appropriate provincial authorities must be adhered to closely. The provincial government's concern seems to be the danger of public expenditure to take care of children whom the sponsor can not take care of sometime after arrival in Canada and thus become dependents of the state.

The partly independent and partly dependent (or nominated relative) base their successful selection on both social and economic considerations. The selection criteria attempts to accommodate people's desire to bring to Canada distant relatives (which are not included in the

sponsored group) and to recognize that these relatives will become long term entrants to the labour force. The 1967 regulations allow Canadian citizens and landed immigrants to nominate the following relatives: sons and daughters irrespective of age or marital status, parents and grandparents less than sixty years of age, brothers and sisters, grandchildren, uncles and aunts, nephews and nieces.

The nominator must meet some general conditions: more than eighteen years of age, a "responsible" citizen, non-default on previous sponsorships or nominations. He or she is also assessed on the support given to the relative. The nominator gives an undertaking to care for the relative, from his own resources, for five years from the relative's arrival date.

The long term factors applied to independent applicants are used to assess the nominated relative: education and training, personal qualities, occupational demand, occupational skill, age. The new requirement for occupational demand also applies here. If the nominated relative is not the families financial provider, than the provider is assessed under the long term factors. Additional points are added to those received for economic factors according to the closeness of the family relationship between nominee and nominator, the more points, generally, the closer the kinship (Green Paper, Vol. 2, 58). Once again, at least fifty out of one hundred points is generally required.

While the above paragraphs describe the essential features of Canada's present immigration policy, two final aspects need to be mentioned. First, Immigration offices are found in several countries but their placement may reflect historical accident or past immigration policies rather than their potential demand by prospective immigrants or present policy. Access to an officer is one prerequisite to immigra-

tion. Second, applications are divided into the following priorities (Green Paper, Vol. 2, 64-65):

1. sponsored dependents;
2. independent and nominated applicants destined to arranged employment or designated occupations, or whose occupations have a high demand rating;
3. entrepreneurs who will create jobs in Canada;
4. all others.

Non-Immigrants for Employment

Persons other than Canadian citizens and landed immigrants must obtain an employment visa to work in Canada. Before the visa is issued, the Manpower Division of the Department of Manpower and Immigration assures itself that no qualified Canadian or permanent resident is available and willing to take the work. Certain persons fall into a class where simplified procedures are applied because of the nature of the occupation, as for example, sales representatives, visiting teams of athletes, large groups of performers, foreign news correspondents, teachers, medical interns.

Workers in this category fall into one of five groups:

1. members of an approved movement based on an agreement between Canada and another country;
2. persons recruited abroad by Canadian employers;
3. certain foreign students;
4. visitors to Canada who take up work;
5. certain people involved in judicial proceedings.

Each group has its own unique examples, procedures, and problems. Since the provinces set minimum wages and working conditions, they and the Federal Government are in contact over appropriate wages and employment standards in occupations where visa holders are concentrated. A large influx of these people into a single occupation could have severe and

complex implications for the wage in that occupation. It is believed that consultation, if not control, is therefore required.

Refugees

Besides the independent, sponsored, nominated applicant and the non-immigrants for employment, there are the refugees. They are now defined according to the United Nations Convention and its Protocol (Green Paper, Vol. 2, 104):

"any person who, owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence is unable or, owing to such fear, is unwilling to return to it."

Refugees are admitted when there is sufficient assistance in Canada to ensure their establishment. In some circumstances, the Minister of Manpower and Immigration may waive the definition of a refugee and admit people who would not come under the above definition. Besides this regular refugee program, Canada responded to several special problems by allowing refugees to enter, as for example in the Hungarian revolt of 1956-57, the Chilean uprising of 1973-74, and the Ugandan Asians of 1972.

By the nature of the refugee case, policies can not be as vigorously laid down for this group, and to some extent Canada's response must continue to be ad hoc.

Chapter II

Immigration and the Ontario Economy: Model and Perspective

Population and Economic Objectives

The Economic Council of Canada in its first annual review listed five economic goals which seem relevant over a decade later (Economic Council of Canada, First Annual Review, 2):

- 1) reasonable price stability;
- 2) full employment;
- 3) a high rate of economic growth;
- 4) a viable balance of payments;
- 5) an equitable distribution of income.

This listing could be supplemented by the recent goals of ecological recovery and a population policy. It does not seem unreasonable to take this total list as a complete set of economic objectives for Ontario. There have been no statements by the Ontario Government to the effect that these are not viable or at least acceptable goals for them, with the exception of a viable balance of payments which does not translate directly into provincial terms.

Within these goals the circular flow of income provides one perspective on the migrants impact on the economy of Ontario. Divided the economic sectors into five: Ontario households, Ontario firms, governments, financial intermediaries, and the "rest of the world". Governments and financial intermediaries may be subdivided into those in Ontario and those outside of the province. The "rest of the world" is made up of Canada excluding Ontario and all foreign countries (Lipsey, Sparks, Steiner, 451). Money flows from firms to households in payment for factor services and returns back to the firms as demand for goods

and services or consumption. The physical inputs of labour, land, materials, capital flow from the household to the firm and return back to the household as physical goods and services. Now there are withdrawals from this circular flow of money and physical products in the form of households' saving, firms' saving, taxation, and imports. The financial intermediaries cycle saving back into the firm for investment. The two other injections into the circular flow are government expenditure and exports to other parts of Canada and to foreign countries. Immigrants enter this circular flow at every level: as demanders in households for the goods and services produced within and without (imports) the Ontario economy, as demanders in firms for physical inputs, as suppliers from households of labour services, land, etc., as suppliers in firms of physical goods and services for sale in Ontario and as exports, as taxpayers and recipients of government expenditures.

It is within this perspective that migration can be dealt with. The immigrant performs a dual role in the circular flow: 1) a supplier and thus part of aggregate output of Ontario; and 2) a demander and thus part of aggregate Ontario demand. The benefits and costs will be treated within this conceptual framework.

Immigration and Aggregate Output

Some twenty years ago, Joseph Spengler, one of the most prolific and influential writers on the economic impact of population change, identified the following factors as important influences on the level of net output per capita (United Nations, Determinants, 220-22):

- 1) Human Resources
- 2) Material Resources
- 3) Economic Organization and Technology
- 4) Social and Cultural Factors

5) External Economic Relations.

By human resources, Spengler means the age/sex composition of a society's population, the participation rates for labour, the spatial and occupational distribution of the labour force, and the changes over time in the quality of the human capital available. Material resources include factor proportions (such as the capital-labour ratio) and the spatial and employment distribution of such productive factors. By economic organization and technology, Spengler means specialization, division of labour, economies of scale, input-output relationships, technical efficiency, innovations, and factor utilization. Social and cultural factors include the social, economic and political systems, property relations, etc. Finally, external economic relations clearly can affect the growth rate of net output per capita.

In formal terms these propositions may be expressed in functional notation by writing:

$$(1) \quad Y = F(K, L, A, T),$$

where Y is real net output, K is real capital stock, L is quantity of labour employed, A is quantity of land and other natural resources employed, and T is state of technique of productive know-how. These outputs and inputs are defined relative to the Ontario economy. This equation may be manipulated by dividing its total differential by Y , and then multiplying and dividing the capital, labour, and resource terms on the right hand side of the differential by K , L , and A respectively:

$$(2) \quad \frac{\dot{Y}}{Y} = Y_K \frac{\dot{K}}{K} + Y_L \frac{\dot{L}}{L} + Y_A \frac{\dot{A}}{A} + \frac{\dot{T}}{T},$$

where $\frac{\dot{Y}}{Y}$, $\frac{\dot{K}}{K}$, $\frac{\dot{L}}{L}$ and $\frac{\dot{A}}{A}$ are the rates of growth of real net output, the real capital stock, the quantity of labour employed, the quantity of land and other natural resources employed; $\frac{\dot{T}}{T}$ is the rate of growth of output due to technical progress. The expressions Y_K , Y_L , and Y_A are the respec-

tive elasticities of real net output with respect to the real capital stock, the quantity of labour employed, and the quantity of land and other natural resources employed. Each of these factors may be studied in turn for their possible effect on the growth rate of Ontario's real net output from population changes via net inward migration. The rate of growth in real net output per employed person (development) is the rate of growth in real net output minus the rate of growth of the quantity of labour employed; from the viewpoint of economic welfare, this is a more appropriate variable to examine than the rate of growth of real net output (growth):

$$(3) \quad \frac{\dot{Y}}{Y} - \frac{\dot{L}}{L} = Y_K \frac{\dot{K}}{K} - (1 - Y_L) \frac{\dot{L}}{L} + Y_A \frac{\dot{A}}{A} + \frac{\dot{T}}{T}.$$

Let us first examine the prospect of accelerating growth through the labour input alone since it is here that the direct effect of net inwards migration is first felt. International migration alters the absolute size and composition of Ontario's population and labour force through migrants' characteristics with regards to sex, age, labour force activity, and occupational distribution. The labour input may be looked at from the viewpoint of population changes, the quality of labour, average hours of work, participation rates, and worker substitution. The following identity establishes the relationship between $\frac{\dot{L}}{L}$, total Ontario population, and the labour participation rate:

$$(4) \quad L \equiv \frac{L}{N} \cdot N$$

$$(5) \quad \Delta L \equiv \left(N \cdot \Delta \frac{L}{N} \right) + \left(\frac{L}{N} \cdot \Delta N \right)$$

$$(6) \quad \frac{\dot{L}}{L} \equiv \left(\frac{N}{L} \cdot \Delta \frac{L}{N} \right) + \left(\frac{\Delta N}{N} \right) \equiv p + n,$$

where N is the total Ontario population and p and n are the growth rates of a labour force participation rate and of total Ontario population respectively. Net inwards migration may be introduced explicitly by the

following:

$$(7) \quad \Delta N \equiv NI + NM$$

$$(8) \quad n \equiv \frac{\Delta N}{N} \equiv \frac{NI}{N} + \frac{NM}{N},$$

where (NI/N) is the rate of natural increase and (NM/N) is the rate of net inwards migration; the rate of natural increase and the net inwards migration rate influence the rate of growth of population. Note that for Ontario, being a province, net inwards migration includes inter-provincial population movement as well as immigration and emigration. If the rate of natural increase is constant, an increase in the rate of net inwards migration via immigration raises both the growth rate of Ontario's population and the rate of growth of Ontario's labour force, assuming that p is not lowered simultaneously. It may be also that the immigrants have a higher participation rate than the indigenous Ontario population; in this case an increase in the rate of net inwards migration raises n directly and p indirectly. But the rate of natural increase may also be falling, and if so the accelerating influence of the rate of net inwards migration on $\frac{\dot{L}}{L}$ is entirely or partly offset.

The quantity of labour employed is perhaps more properly to be regarded as the quantity of man-hours worked. Hence, we may write:

$$(9) \quad L = H \cdot E,$$

where H is the average hours worked per person per period in Ontario and E is the total number of Ontario persons employed. Expression (9) may be written in terms of growth rates:

$$(10) \quad \frac{\dot{L}}{L} = \frac{\dot{H}}{H} + \frac{\dot{E}}{E}.$$

Expression (10) recognizes that the positive contribution which net inwards migration may make to $\frac{\dot{L}}{L}$ via n may be offset wholly or in part by a decline in the number of hours worked. Secondly, the $\frac{\dot{L}}{L}$ factor should take into account a change in the quality of labour. If labour is

unadjusted for quality, changes in $\frac{\dot{L}}{L}$ due to changes in the net inwards migration rate would be overstated or understated, depending on whether the increase or decrease in the rate of net inwards migration deteriorates or improves the quality of the labour inputs. Rough measures of immigrants' quality are their educational and vocational training as well as any on-the-job-training which they may have received. Ontario receives human capital which was educated and trained in other parts of Canada and in other countries. The inflow of entrepreneurial labour may be especially important as they bring with them organization, risk-taking and management talents. As Joseph Schumpeter wrote, the immigrant entrepreneur may innovate: the introduction of a new good or of a new quality of a good, the introduction of a new method of production, the opening of a new market, the useage of a new source of supply of raw materials, industrial reorganization (Higgins, 91-92). This illustrates not only why immigration affects the labour input but also shows how it feeds back onto the other inputs as well: entrepreneurs introduce technological change and other innovations which increases net investment which raises the stock of capital goods in the Ontario economy which, along with L and T , increases real net output in the economy of Ontario.

Is it possible to hypothesize that net inward migration affects the participation rate? In general, migrants tend to be of working age and consist largely of persons in the 20 to 35 years of age group, namely the most mobile group in the labour force. This leads to the presumption, therefore, that the participation rate of migrants exceeds both the average rate and that of the indigenous population (Davis and Gupta, 14). If this presumption is correct, an increase in the rate of net inwards migration raises $\frac{\dot{L}}{L}$ in expression (6). So this and the preceding

paragraph argues that the net inwards migration rate has two influences on the rate of growth of the labour force: a direct impact via n , and an indirect impact via p .

A qualification is merited. Where net inwards migration brings about labour substitution and/or affects the sex structure of the population, the overall average participation rate is likely to rise. If, as is likely, the displaced labour tends to be women or youths, the net effect is positive since the participation rate of migrants is likely to be higher than those of women and youths in the indigenous labour force (Woods and Ostry, 302-10). Since migrant labour tends to be predominately male, the proportion of males to females in the total population rises (Davis and Gupta, 9). Hence the participation rate of the labour force also rises, on the assumption that male participation rates are higher than those for females. All workers in Ontario do not have the same education, skills, training, and experience, and so immigration brings about changes in relative wages among the different types of workers. If all else is the same, greater immigration into Ontario lowers relative wages of those workers who have the characteristics of the migrants and raises relative wages of workers who are complementary to immigrant labour. As labour costs affect product prices, this has an impact on the relative prices of goods and services.

Returning now to expression (3), it is clear that ceteris paribus a positive rate of growth of the labour force via net inwards migration lowers $\left(\frac{\dot{Y}}{Y} - \frac{\dot{L}}{L}\right)$. Assuming constant returns to scale and using Euler's theorem, $(Y_K + Y_L + Y_A)$ equals one, Y_L is less than one, and $[-(1 - Y_L)]$ is negative. This result is due to the many factors affecting $\left(\frac{\dot{Y}}{Y} - \frac{\dot{L}}{L}\right)$ which are as yet assumed constant; the rest of this section examines each of these factors: the capital stock, returns to scale, land and

natural resources, technology, and productivity. However, as a statement of policy, it is useful to note the fact that having more workers in the Ontario economy, all else the same, lowers real output per worker. If the province wants more workers, they must be accommodated with complementary inputs defined broadly or else economic development deteriorates. This problem does not arise if Ontario has some excess capital capacity as immigrant workers would not be held back by inadequate supplies of complementary inputs.

If $\frac{\dot{K}}{K}$ now changes, we may look first at its impact on $(\frac{\dot{Y}}{Y} - \frac{\dot{L}}{L})$ and secondly at the influence of net inwards migration on $\frac{\dot{K}}{K}$. Expression (3) indicates that an increase in $\frac{\dot{K}}{K}$ raises the growth rate of real net output per employed worker, all else the same. It is possible, therefore, that the growth rate of capital could offset the impact of $\frac{\dot{L}}{L}$ on $(\frac{\dot{Y}}{Y} - \frac{\dot{L}}{L})$; assuming that $\frac{\dot{A}}{A}$ and $\frac{\dot{T}}{T}$ are zero, if $\frac{\dot{K}}{K}$ equals $\frac{\dot{L}}{L}$ then Y_K must be greater than $(1 - Y_L)$ in order for $(\frac{\dot{Y}}{Y} - \frac{\dot{L}}{L})$ to increase. In the special case where natural resources and land are free goods, this means that the economy must be working under conditions of increasing returns to scale:

$$(11) \quad Y_K > 1 - Y_L$$

$$(12) \quad Y_K + Y_L > 1$$

So if increasing returns to scale do not develop along with net inwards migration, $\frac{\dot{K}}{K}$ must be greater than $\frac{\dot{L}}{L}$ in order to raise $(\frac{\dot{Y}}{Y} - \frac{\dot{L}}{L})$.

The impact of migration on $\frac{\dot{K}}{K}$ may come about in three or four ways, namely by affecting the supply of investment funds, by influencing expectations about the future, and by changing relative factor prices. Net inward migration may increase the availability of investment funds in Ontario either directly by the savings imported by the migrants, or by the funds imported as a result of net inwards migration. If net

inward migration increases aggregate demand, for example, a type of accelerator may come into play and lead to an increase in $\frac{\dot{K}}{K}$. Since capital formation depends heavily upon the climate of current or future expectations, an increase in the labour supply and in aggregate demand may induce optimism among those undertaking such formation and lead to an increase in net investment. However, there may be long lags in the economy's investment functions and so raise $\frac{\dot{I}}{L}$ in relation to $\frac{\dot{K}}{K}$. Since net investment is at least in part a function of aggregate savings, net inward migration may influence the former by shifting the savings function upward or downward. This is a crucial issue because the immediate effect of immigration may be to decrease the capital-labour ratio which would reduce real output per worker and lower economic development. Immigration must be accompanied by capital expenditure either from Ontario or "outside" sources.

Net investment may also be influenced if net inward migration tends to reduce the relative price of labour as increased immigration to Ontario will do. The extent of this relative decline depends on how many immigrants enter, the degree of substitutability between labour and the other now scarcer productive factors, and the extent of increase in K , A , and T . Where labour and capital are complementary inputs, an increase in $\frac{\dot{I}}{L}$ eventually accompanies an increase in $\frac{\dot{K}}{K}$. When labour and capital are substitutes, the lower real wage from an increase in $\frac{\dot{I}}{L}$ may induce a substitution of labour for capital and a subsequent lowering in $\frac{\dot{K}}{K}$. This may, or may not, release investment funds for more productive employment elsewhere. Lower real wages, other things equal, also reduce unit labour costs causing unit profits and the rate of return on investment to rise, if the products' demand is not simultaneously reduced.

To resume the discussion on returns to scale, an economy working under conditions of increasing returns to scale and having $(Y_K + Y_L + Y_A)$ greater than one may have Y_L greater than one, and therefore lead to $\frac{\dot{L}}{L}$ affecting positively the growth rate of real net output per worker. Net inward migration may cause increasing returns to scale if this enlarged product market allows firms to approach more closely the minimum of their long-run average cost curves and if this enlarged factor market relieves labour bottlenecks and results in a better mix of resources among industries and regions. The increased supplies of inputs and outputs and larger market size improves the efficiency of resource allocation in Ontario. It is in this regard that immigration adds to and may substitute for interprovincial labour migration. Immigration adds to the labour force of a province, namely Ontario, which has experienced above average growth and development over the post-war period. If factor bottlenecks and inappropriate industry mix would have occurred, then immigration enlarges and maintains regional income disparities. If further out-migration from lower income regions in Canada is necessary for those areas to develop more fully consistently, and if immigration prevents this flow, then Ontario and Canada may want to consider this in future policy considerations about immigration.

More recently suggestions have been made that Ontario may be approaching the reverse condition of decreasing returns to scale. As output expands the costs which a firm faces begin to rise either because of inefficiencies which are internal or external to the firm or because of higher input prices or costs associated with greater demand for the factors of production. The gross result would be a further decline in real net output per worker as well as the initial fall from the augmentation of labour input via immigration. In some sense, the province

attains its so-called "optimum population", although to measure this exactly has up to now been beyond man's ingenuity.

Looking now at land and natural resources, a larger population and capital stock may lead to diminishing returns in the resource area and so turn the economy towards constant or decreasing returns to scale. Kuznets believes that population growth will bring about the spreading of people into new areas and therefore increase the natural resource base (Kuznets, 326). While this is certainly possible, especially for a geographically large province in its early development stage, the new resources may in time be of inferior quality, thus negating some of their positive effects on the growth rate of real net output per worker. This is reflected in the sometimes stated belief that immigrants should be settled in the frontier regions of Ontario, namely northern Ontario, rather than where they now tend to settle.

What hypotheses can be suggested to link changes in net inward migration with the growth rate of real net output per worker via $\frac{\dot{T}}{T}$? Assume $\frac{\dot{T}}{T}$ is positive; it could offset the negative effect of $\frac{\dot{L}}{L}$ on real net output per worker. Recall that T is the state of technique of productive know-how. The concept of knowledge relevant to output includes both "technological" and "managerial" knowledge, the former consisting of knowledge concerning the physical properties of things, and of how to make, or combine, or use them in a physical sense, and the latter consisting of advances in knowledge concerning the techniques of management and in business organization (Denison, 231-232). Examples of technological knowledge are the steam engine, computers, atomic engines, synthetic fibers, and of managerial knowledge are improvements in work scheduling and in methods of appraising potential markets, architectural advances in home design, and introduction of self-service stores. An

inflow of people may influence both. A larger population implies more people at all levels of knowledge (and therefore a better coverage of interrelated fields) together with an expanded market which may encourage technological experimentation and research. It may also be argued that net inward migration, by making labour relatively less expensive, lowers incentives to introduce labour-saving innovations which may increase output per capita by improving total factor productivity. In the past some immigrants brought improved skills with them to Ontario. Additions to the capital stock may embody technical progress; if so and net inward migration causes net investment, $\frac{\dot{K}}{K}$ (adjusted for quality changes) increases. One other aspect of knowledge is the lag between actual production practices and the best technique known to anyone, except as changes in this lag result from changes in labour force education which is taken account of in Y_L , labour productivity. Barriers to international labour mobility may enlarge this lag by preventing best techniques from spreading to Canada via people flows; lower barriers and larger inflows would have the opposite effect.

Let us look at productivity as the final ceterus paribus condition of the opening pages in this section. Y_K , Y_L and Y_A of expression (3) include productivity and its changes; net inward migration may influence this variable directly through improved educational levels and greater population mobility, and indirectly by affecting many of the other factors like economies of scale which have an impact on productivity. If the average quality of the immigrant labour force is higher than the average quality of the indigenous labour force then productivity should be raised; this is the well known idea of human capital. One recent study attempts to measure the human capital which recent migration to and from Canada represent (Wilkinson, Chapter 2). Wilkinson concludes

that the net gain to Canada from total migration between 1951 and 1961 is about \$12 billion which equals 137% of the aggregate net capital inflow over the same period. Net migration has been an important source of human capital to the Canadian economy. If Ontario receives about 55% to 60% of these net migrants, then the impact on her economy directly is also significant. Since the migrant population tends to be more mobile, they may settle or move more readily to the growth regions and growth industries, thereby improving the factor mix in the economy and making existing resources more productive. Without this factor mobility, the relative cost of labour may remain too high to permit the economy to reach its potential real output. Net inward migration may influence the internal mobility of the labour force. Indigenous workers who are competitive with migrants may tend to avoid regions which are settled by migrants or they may be displaced; indigenous workers who are complementary with migrants tend to be attracted to regions and industries which employ these new arrivals. Just two points will be mentioned for the indirect effects. Where less productive natural resources, including land, are brought into use because of net inward migration, productivity may in fact fall. As economies of scale and net inward migration may go together, productivity likely improves.

Immigration and Aggregate Demand

This section examines the impact of net inward migration on consumer expenditure, government expenditure, investment expenditure, and "exports".

E.J. Mishan and L. Needleman divided aggregate consumption expenditure arising from net inward migration as follows: the addition to consumption expenditure as a direct result of the increase in population and, secondly, the increased expenditure stemming from the profits

generated in production by the migration addition to the labour force (Mishan and Needleman, 130-36). In the first place, the extra peoples' marginal propensity to consume "domestic" (i.e., Ontario) consumption goods and their aggregate income less their net money transfers to the government, personal savings retained, mortgage repayments, and net remittances influence the total net domestic (Ontario) consumption expenditure of the additional population. Of course, if immigrants consume goods and services produced in other provinces, the Ontario economy may still expand its demand if the incomes thus made in other provinces are spent in whole or in part in Ontario or if the inputs used to produce these goods and services are purchased in Ontario. From total remittances, some fraction is spent by recipients "abroad" on the host province's "exports"; this shows up as part of aggregate demand. The total income of the additional population and their tax rate affect net money transfers to the government; the total income of these people and their saving rate influence personal savings. The profit earner's marginal propensity to consume Ontario produced goods, the size of the profit margins earned, their tax rate, and their saving rate influence the second consumption expenditure, namely the net domestic consumption expenditure arising from the profit margins earned on the additional population's value added. Aggregate consumption expenditure is therefore greater for any given net inward migration the greater is the marginal propensity to consume domestically (Ontario) produced goods, the income of the additional people and the profit margins derived, and the lower is the tax rate, the savings rate, total mortgage payments, and remittances of the additional population.

For consumer expenditure in general, a province with a growing population, say due to net inward migration, may experience more rapidly

increasing demand for consumer goods and services than an economy with a slower rate of population growth. Since migrants tend to be in the younger age groups, they are more likely to have a high level of consumption than the average citizen. This supports the hypothesis that of two provinces with the same provincial income, the one having a younger population is likely to consume more and save less than the one having a middle-aged population. If the consumption multiplier is operative and so long as the migrants added to the labour force can find employment, income and consumption experience a disproportionate increase. It may also be that a younger population is more responsive than a middle-aged population to new products; this may stimulate demand and increase consumption. However there is a negative impact. Should savings fall and consumption rise, investment funds to increase the stock of capital may decline and thus fail to leave a higher per capita output.

Since immigrants differ from the indigenous population with respect to age, family composition, social-cultural background, etc., their pattern of consumption may be different (Department of Citizenship and Immigration, 1964). Immigration then will not only influence total consumption but also the distribution of that consumption among goods and services: durable vs. non-durable goods, rental accommodation vs. housing, etc.

Government expenditure may vary directly with the provincial income or it may vary with the size of the population. Where it varies with provincial income, government expenditure rises by some proportion of the additional income generated by net inwards migration. Where a government expenditure varies with population, the government may provide direct aid to migrants (loans, fixed capital, services, etc.). Where a government seeks to maintain minimum standards for medical care

and education, an increase in net inwards migration clearly could raise the total expenditure on this indirect assistance. Conversely, working age immigrants provide a source of labour educated and trained without cost to the host nation; hence, government expenditure on education may be held down. The immigrant who earns an income pays taxes which help pay for this direct and indirect expenditure. The migrant's propensity to consume this indirect assistance influences the impact that they have on government expenditure. This adds up to the difficult question of the net impact of immigration on the Ontario Government's budget; it is unclear.

The general effect of net inwards migration on gross investment has already been discussed above. However, one or two additional points may be made. Industrial investment resulting from immigrant-generated expenditure may be related to the provincial income flowing from the increment to the population. The actual change in the stock of capital resulting from net inwards migration depends on the associated income change, the "import" fraction of investment expenditure, the capital-output ratio for industrial plant and equipment, and the existing usable excess industrial capacity as a fraction of total industrial capacity. Investment in social fixed capital (including housing) is related to the change in population due to net inwards migration. The change in this type of capital stock depends upon the net inwards migration level, the average social capital expenditure per additional person, the existing usable excess capacity as a fraction of total social fixed capital capacity, and the "import" fraction of this type of investment expenditure. The migrant often leaves behind whatever housing accommodation he had, the utilities going with it, and at least some of its belongings. This results in a demand for housing almost immediately upon arrival,

although it may take several years for the full effect to work itself out. If the net inwards migration is large, demand for transportation and other utility services may increase. This may induce net investment in these areas, although, being highly capital intensive, there is often some excess capacity; demand may therefore expand without a change in the stock of capital taking place.

Exports and imports in an Ontario sense refer to transactions with other Canadian provinces and with foreign countries. The increased aggregate demand and the change in aggregate supply resulting from immigration to Ontario alters both "imports" and "exports". Because immigration affects the prices and quantities of "exportable" commodities through its influence on input supply and demand for products, product prices may fall and increased "exports" will appear if foreign countries and other provinces also demand more of Ontario's goods and services. On the other hand, greater immigration which raises expenditure also increases "imports" from other countries and especially from other provinces. Some "import" substitution, however, may develop in Ontario as the size of the immigrant population grows. At the same time, immigrants bring funds with them to Ontario and send funds out of that province. The overall effect on Ontario's "balance of trade" depends on the relative strengths of all of these factors. This is important to Canada which appears to experience income and employment inequalities among its provinces. In view of Canada's tradition, until recently, of stressing national development rather than regional development, the low relative income-high unemployment provinces, of which Ontario is not one, may well cry "trade not aid".

Immigration and Inflation

This section divides into three parts, namely demand inflation,

structural inflation, and cost inflation. The impact of net inward migration on each of these inflationary tendencies is looked at in turn.

An increase in the general price level may come about as a result of an increase in aggregate demand from an initial position at or near full employment; this increase in demand may arise from the public or private sector, and from individuals or institutions. The result in any case is too much money chasing too few goods if aggregate supply does not rise with the increase in aggregate demand.

The last section on aggregate demand identified and studied several ways in which net inward migration either generates additional demands directly or leads others to increase their demands. At the same time net inward migration may increase aggregate supply through the effect on labour, capital, technology, etc., outlined in another section of this chapter. Assuming a full employment economy before immigration takes place, there is no a priori reason to believe that migration-induced demand and supply move in parallel; and it is possible for aggregate demand to increase faster than aggregate supply thus causing demand inflation.

Structural inflation which is really an extension of demand inflation provides a link with cost inflation. A rise in the general price level may come about if the structure of demand changes more rapidly than resources can be shifted out of sectors experiencing falling demand and into sectors with rising demand. Prices which may be inflexible downwards in declining demand sectors provides the link with cost inflation.

For net inward migration to cause this type of inflation a demand shift must occur sometime after and be linked to the migration. Net inward migration, while it is likely to cause demand and perhaps price

risers in some sectors, does in all probability not reduce demand in other sectors, at least in the short run, unless the buying habits of, and induced spending from inward migrants differs from those of outward migrants. In the latter case, some structural inflation may occur. In the long run, continued net inward migration alters the receiving province's society, but the long time period involved should allow the situation to change without inflation. On the other hand, immigrants could relieve bottlenecks in production and so reduce the upward pressure on prices in certain sectors. It all depends on which occupations and industries the migrants enter and on their spending habits.

A.P. Lerner points out that cost inflation may also result from net inwards migration if this leads to the acceptance of a standard real wage above the workers' marginal productivity, and thus reduces employment (Lerner, 55-60). It may stem from a lowering of labours' marginal physical productivity or from the importation by the migrants of a higher standard real wage which becomes adopted by the host country. In either case higher prices tend to force real wages down below the standard, which in turn leads to higher money wages in an attempt to maintain or to restore the standard. This, in turn, however, leads to higher prices and tends to create a repetitive cycle. If, as a result of higher money wages, there is increased unemployment, public policy may dictate the adoption of expansionist practices, thus adding to the pressure of inflation.

Economy a Function of Population

This perspective on immigration and the one which Ontario should adopt comes full circle. The economic objectives were stated and it has been shown that immigration may affect them. Each reader has his or her belief about whether these effects are benefits or costs of immigration

into Ontario. An in-depth study of immigration would investigate the qualitative and quantitative magnitude of the benefits and costs in the framework or perspective of aggregate supply, aggregate demand, and inflation. Some of these impacts will be studied in future chapters, but some must only be recognized in this chapter as effects and not detailed later.

Chapter III

The Green Paper on Immigration

Introduction

The people of Ontario and the government which serves them in Toronto must be concerned with the Report of the Canadian Immigration and Population Study, the so-called Green Paper on Immigration, since this province contained over fifty percent of Canada's foreign-born population in 1971 (Table 2). Also, Ontario's percentage has grown over the last four decades. Using the economists' circular flow of income concept, which was introduced in Chapter II, migrants act as both providers of goods and services through their participation in Ontario's labour market and as demanders of these same goods and services through their actions as consumers. Some of these goods and services are provided by the private sector, some by the government sector, and some by foreign firms and individuals via imports. Of course it must be realized that immigrants to other parts of Canada also have an impact on the Ontario economy. As the supplier of a relatively large percentage of Canada's manufactured goods, the Ontario economy is affected by rising population and demand in other provinces, as well as by the possibility that rising populations in other provinces will encourage the establishment of industries in those provinces which will compete with Ontario's firms. What is good for Canada may not be good for Ontario. Regional growth may hinder Ontario's development. Chapter II pointed out the provincial prospective on these issues and came to the conclusion that Ontario must be concerned. A wide overview of the Paper, including its objectives and recommendations, along with a critical evaluation of it from a general, Ontario, population perspec-

TABLE 2

Distribution of Foreign Born Population Among
Provinces, 1941-1971 (%)

	1941	1951	1961	1971
Nfld.	--	0.2	0.2	0.3
P.E.I.	0.1	0.1	0.1	0.1
N.S.	2.0	1.4	1.2	1.1
N.B.	1.0	1.0	0.8	0.7
Quebec	11.1	11.1	13.7	14.2
Ontario	36.4	41.2	47.6	51.8
Man.	9.6	8.2	6.0	4.6
Sask.	11.8	8.5	6.0	4.6
Alb.	12.8	11.7	10.1	8.6
B.C.	15.1	16.5	14.9	15.1
Yukon & N.W.T.	0.1	0.1	0.2	0.1

Source: Green Paper, Vol. 3, 15.

tive follows. While the basic ingredients of the Green Paper will be mentioned throughout this chapter, it is useful to note two aspects before proceeding.

First, since the Paper predicates its beliefs on recent Canadian immigration, the authors of the Paper mention four features of the post-1967 immigration movement which they believe are important: 1) the pronounced change in source countries towards Asia and the Caribbean; 2) a rise in the proportion of immigrant workers accounted for by the sponsored and nominated categories; 3) a downtrend in the overall skill level; and 4) the uneven settlement patterns with Ontario being favoured (Green Paper, Vol. 1, 32-33). Second, the four policy options in the Green Paper should be noted now: 1) retain the present system; 2) tie immigration more closely to economic and labour market objectives; 3) develop and announce explicit targets for the number of visas issued annually; 4) establish an annual global ceiling for total immigrant inflow, specifying the priorities to be observed in the issuance of visas to different categories of immigrants within that ceiling (Green Paper, Vol. 1, 42-45).

The rest of this chapter is a presentation and personal assessment of the Green Paper on Immigration. Sight must not be lost of the fact that immigration policy for Canada is immigration policy for Ontario is population policy for Ontario.

Population and Immigration

The Paper recognizes explicitly from the start that "there is virtually no national issue of concern to Canadians today that is not bound up in one way or another with the course followed by the development of our population" (Green Paper, Vol. 1, 1). This can be paraphrased as immigration policy is social policy. If the work of David

Gil is used, social policies in the provincial context are those which deliberately pertain to quality of life and to circumstances of living in Ontario, and to intra-societal relationships among individuals, groups, and Ontario as a whole (Gil, 1973, 13). It is unfortunate that the Paper does not develop such a definition since it emphasizes the chief concerns of a great many of Ontario's residents: quality of life, circumstances of living, and intra-societal relationships. At any time there is a stock of social policies in place in Ontario and Canada that affect such diverse yet interdependent areas as income, housing, transportation, education, science, ecology, and immigration to mention but a few. They are part of a comprehensive system. While the Acts and regulations governing immigration to Canada and, as argued above, to Ontario, actually, may on the surface deal only with numbers of people allowed into Canada and with admissible classes, their importance is far-reaching for other social policies which the Ontario Government may have enacted or will enact in the future.

Housing is an example. Faced with rising costs of housing and the apparent inability of some people to purchase a house, the Ontario Government introduced policies which it hoped would alleviate part of the problem. A social policy designed to set standards for quality, quantity, locational distribution, and type of housing should take immigration policy into account. In the most obvious way, a change in immigration policy which leads to an increase in the gross inflow of people to Ontario from 60,000 to 120,000 per year would at least mean a re-evaluation of the number of required housing units. Housing policy is especially vulnerable to changes in immigration policy because immigrants tend to settle in Ontario's urban areas. This example demonstrates the interaction between immigration policy and other social

policies.

The Paper calls quite rightly for a coordinated set of public policies that will recognize immigration policy as a social policy. This assumes that such a set can and should be developed within the constitutional framework of Canadian society. At the provincial level, coordination requires the understanding and efforts of both the government at Queen's Park and the regional and municipal governments which often administer social policies which may in fact be passed by the provincial government. At the national level, the Federal Government must cooperate with the provincial governments to see that the benefits and costs of the new immigration policies are distributed in some equitable manner. This assumes that the goals to be achieved have been specified and then agreed to by all parties concerned. The Paper enumerates a series of such goals but they are not collected in one place; some of them will be mentioned and commented on below.

In the context of immigration and its effect on the Ontario economy, population "pressure" outside of Canada is an important factor because it means that the demand by people to enter Canada and, for the majority, Ontario, will exceed the supply of places available in terms of persons admitted. This is not to write that more people should not be admitted, but only that there will be a waiting list of sorts for the foreseeable future. The Green Paper's assumption that the growth rate of population must sooner or later slacken is like Walter Rostow's prediction that all countries must eventually take off: both may be a long time in the future (Rostow, 1965, 4-16). In the same way, the Paper assumes that the Canadian birth rate will remain at its present level, which is lower than a decade ago, or fall further. What is the basis of this assumption? It is desirable that the Ontario Government

watch the province's birth rate closely for it may start to move upwards in less than a decade (Marsden, 1975, 26-27), or an increased rates in other provinces may lead to population flows to Ontario.

The population problem, then, is exogenous to Canada and Ontario as seen by the authors of the Green Paper. The assumption made here is that Canada does not have too many people although the criteria for reaching this conclusion are not stated in the Paper, and some would ask if recent ecological problems might not be caused in part by an inappropriate adjustment of supply to rising demands. However, the Paper sees a demographic problem: "urban congestion, regional imbalances, and trends that entail the de-population of some areas and an undesirable rate of growth in others" (Green Paper, Vol. 1, 2). This is a key statement for Ontario since one of the Paper's areas of urban congestion and perhaps too high a growth rate relative to the lower income provinces must surely be Ontario. If these problems are in any way related to immigration then they must be caused by too many people coming to Ontario and too few to other provinces, and by too many persons coming to Toronto and too few to other areas of Ontario. There is still some debate on whether jobs should be moved to the people or whether people should be moved to the jobs. The latter philosophy would applaud the de-population on some areas where growth is slow and the movement of immigrants to high growth provinces. A deliberate policy of discouraging immigrants from coming to Ontario and, within that province, Toronto would affect both the labour supply and demand for goods and services of that province and city. The benefits of such a policy may not outweigh the costs, and thus the interests of Ontario may be different from those of the Federal Government. It is yet to be shown that urban congestion and regional imbalances are a function of demographic characteristics.

The work of the Economic Council of Canada on the latter issue emphasizes education, participation rates, productivity, and availability of capital rather than population aspects per se and certainly not immigration (Economic Council, Second Annual Review, 97-127).

Change in Ontario's population is determined by the difference between births and deaths in the province plus the difference between inflows and outflows of people. The latter of course include interprovincial migrants as well as immigrants and emigrants from and to other countries. The Green Paper argues that births and deaths cannot be controlled by government policy and thus people flows become the instrument by which a desirable population level is reached. It should be mentioned that births are likely influenced by some policies which may be introduced or are now used in Canada like birth control information; so it is unduly restrictive for the Paper to write that children are a private decision which is presumably beyond government's interest while the movement of people is in its interest. Have governments suddenly abandoned moral suasion? Ontario must face the effects of interprovincial migration which the immigration officers in Ottawa can ignore. A population policy for Canada based on a certain inflow and outflow of migrants could present Ontario with a population imbalance because interprovincial flows are either larger or smaller than expected. Should Ontario deliberately discourage or encourage interprovincial migration, perhaps with specific policies directed to this objective?

The aging of Canada's population because of low fertility rates receives specific mention by the authors of the Paper. One objective for them of immigration policy is to offset this fact by encouraging migrants in the 20 to 40 age group. Not much encouragement is needed

for the independent applicants since economic characteristics weigh heavily in their chances of making the required fifty points and people of working force age are more likely to have these characteristics. This objective may present some problems for the sponsored group where kinship criteria are important. The thought that immigrants of working age are the "best" stresses only the labour market or supply side of the benefit-cost paradigm of the migration function. The migrant as a consumer also needs to be included with, it seems, equal weight. Throughout the Green Paper, the labour force characteristics of the immigrants receive full play while the other aspect of their dual role, namely the demand side, is given second consideration. More will be made of this later, but the Ontario Government must stress demand as well as supply.

The Green Paper dismisses the argument that growth for Canada requires a larger population by stating that "the evidence in favour of higher rates is uncertain" (Green Paper, Vol. 1, 6). The authors continue by implying that social strains and deterioration of the quality of life have been omitted by those who desire greater immigration. They believe that economies of scale can best be achieved through greater international trade than via a larger Canadian population. It is impossible, and perhaps undesirable in a short statement like this, to put these propositions to a test for the Canadian economy, except to note that the Paper's argument sounds like the economist who said that since fiscal policy could stimulate aggregate demand and thus cure the recession monetary policy need not be considered. If a larger international market leads to economies of scale, a larger Canadian market will at least move in the same direction. Also, these statements in the Paper say nothing about Ontario's economy; while a larger Canadian

market may not make much difference to Canada's per capita income, a larger Ontario market may have a greater impact on individual industries and firms in this province. By way of comparison, Britain, in the late nineteenth and early twentieth century, did not shift its trade in the aggregate towards the British Empire, but for specific products like cotton textiles, ships, and iron and steel, the importance of the Empire market grew (Marr, "British Trade"). David McGinnis points out that while international trade can result in scale economies for Canadian industries which export, the majority of firms that serve only the Ontario market derive no satisfaction from the Green Paper's suggestion (McGinnis, 1975, 58). For these firms, the growth of the Ontario market is important.

The issue of growth, development, immigration, and social policy is made all the more difficult by the fact that present immigration policy does not pre-fix the number of admissions for some time period. The Paper's objective of policy coordination is in part thwarted by this fact and so the authors seem to prefer some quota on inflows as a policy objective. While this would make planning at the national level easier, the implementation of quotas would make immigration policy inflexible. Planning at the provincial level would still face problems associated with internal population movements, and manpower needs in Ontario could require prompt attention which might not be possible with quotas except with the use of guest workers.

On this latter problem, the Green Paper encourages each region of Canada to develop its full potential. As the Paper states, the efforts of various levels of government to achieve this end must not be made more difficult by inappropriate immigration policies. While no policy is stated, some special consideration might be given to immigrants who

went to live in areas where development is below potential; if the persons moved out of this area, they could be deported! Past events have introduced some features which the Green Paper thinks are currently problems: regional population distribution, urban planning, diffusion of population to metropolitan areas (Green Paper, Vol. 1, 9). There is clearly a fear here of population growth in certain regions. While a more dispersed pattern of immigrant settlement in Ontario might reduce congestion and pollution in Toronto and may even reduce the total cost of providing urban services in Toronto, the conclusion still does not follow that this would be efficient. There are economic reasons why conglomeration reduces average costs in the long run and these could well rise if immigrants were encouraged to live in smaller cities and towns. The Paper recognizes the paradox of forcing people to live in certain areas and still espouse some kind of democratic society. If the immigrant can be prevented from living in certain metropolitan areas, can the Canadian-born population also be moved? Some kind of voluntary incentive system appears to be the sole possibility. A decentralization of Ontario's population by itself would likely lower real output per capita as the last chapter showed as people would be moved to areas without complementary inputs. The issue of moving immigrants puts up a screen to the real issues of the growth potential of these areas in terms of the provision of the other inputs besides immigrant labour.

In stressing the desirability of encouraging a wider geographic dispersion of the immigrant population, the Paper does not state the premises which underly this desire. Why are immigrants desirable in all areas of Canada? If the Federal Government moves more towards linking immigration with job opportunities, then the Ontario Government must keep a close watch on all aspects of its industrial sectors in order

that this controlled access immigration policy does not cause labour shortages. The introduction of a more controlled process is bound to lead to problems which the freer system did not have.

While still on the city issue and in a rare moment of excursion into the migrants' demand capability, the Report notes that immigration intensifies demands for housing, transportation, and community services. The implication is that few immigrants would be better. While it is true that more people create a greater demand for housing, transportation, and community services, the supply of these goods have also been increased since immigrants are labour suppliers. The Report's implied assumption that transport and community services are now being operated at capacity is not proven. To intensify demand is not bad in itself if supply expands at the same time. The issue is complex and therefore the Ontario and municipal governments would be well advised to look at both sides, benefits as well as costs.

In another sphere of the population issue, the Green Paper notes the influence which many cultural groups have had on the social and cultural institutions of Canada. This is of course true for Ontario. The Report applauds these influences and assumes that they should be continued. The Report believes that it is essential to the national interest that immigration of more people likely to integrate within the French-speaking community take place. The authors ask if data on ethnic composition might not again be collected, while accepting the policy of non-discrimination on ethnic grounds introduced during the 1960's.

The Green Paper's main objectives in the domaine of population and immigration may be summed up as 1) a firm hold on the control of immigration flow, and 2) a non-discriminatory approach. The former presumably means a close link between job opportunities and immigration,

while the latter refers only to discrimination by ethnic origins but still allowing discrimination on other grounds, mainly economic.

The Working Immigrant

The Green Paper devotes a great deal of space to 'the immigrants' impact on the labour market in particular and the Canadian economy in general. The Report's two key considerations, taken from the 1966 White Paper on Immigration, are that immigration link closely to "economic realities" and that the policy in this area be "forward-looking" (Green Paper, Vol. 1, 19). The latter consideration implies that regulations would be used rather than Acts of Parliament since they can not be varied quickly to meet changing circumstances; little room is left for long term doctrine. The first consideration concludes that immigration policy must do all it can to match immigrants with jobs; this becomes a central objective of policy as seen by the authors of the Report. After accepting these points, the Green Paper considers the short, medium, and long term perspectives which face immigration policy.

If output is a function of labour, capital, raw materials, intermediate products, and technology, output may be increased for some time with labour inputs held constant. But this can not occur indefinitely; a labour shortage or bottleneck develops after a time. In the short term, the Report sees immigration policy preventing this from happening by supplying labour where required. This is an ex post response; policy responds only after a shortage has developed. The Paper notes that these shortages often appear only for some region, like a province, and are not general shortages in the entire Canadian economy. If there is a short term shortage of carpenters in Ontario and as a result construction is held back, the Report visualizes immigrants being admitted who have the needed skills. Ontario must realize, however, that these are

permanent additions to the labour force and not people with short term employment visas; this could be incompatible with long term goals of, say, reducing the growth rate of labour supply in Ontario. This short term objective of removing labour bottlenecks ties in with the Paper's view of Canada's manpower service as matching people with existing jobs. But should a manpower service not also be attempting to create jobs? Immigrants not only fill existing jobs but they also create new jobs either directly as entrepreneurs or indirectly through the demand which they provide for goods and services.

The Green Paper's belief that Canadians should have first chance at the jobs created by the national economy raises an interesting question for the provinces. Should residents of Ontario enjoy first chance at the jobs created in this province's economy? Canada today appears to be a nation divided along a number of regional axes. It is easy to answer no to the question because Ontario makes few jobs all alone, being part of an interdependent country; but how many jobs does the national economy create all by itself, especially with Canada's open economy. If the Green Paper's argument is so extended to a not so distant conclusion, the provinces should be able to exclude interprovincial migrants from jobs in other provinces. The Report's view of the labour market is that the Canadian economy creates job vacancies which if not filled by Canadians can be taken up by immigrants. There seems to be no chance for this process to work the other way around. This discussion of the short term ends with two more points.

First, is the short term anything more than a theoretical construct? Matching immigrants with job vacancies and also overcoming labour bottlenecks must be part of a continuing planning process. In this regard, and second, the Paper mentions that all levels of govern-

ment must co-operate if the short term objectives are to be met. The Ontario Government must watch the labour market very carefully to see that it is not being hampered by a too liberal or too restrictive policy of matching immigrants with jobs. Other areas of concern were mentioned above.

The Report's medium term appears to have no life of its own; it seems to be based on the ability of immigrants to adjust to change in the economy, but in what sense is this medium term as opposed to long term? The Paper's short term objective of filling specific jobs may bring to Canada, the authors note, people who are unable to adapt to structural change. This is an assumption on the authors' part. They therefore emphasize in immigration criteria factors which make people more adaptable: age, schooling, skills. It is useful to repeat that the terms are non-unique with no clear cut criteria for distinguishing one from another.

The longer term may well prove to be the most crucial phase for Ontario since it is in that time frame that permanent policy is set out. The Paper notes that the 1960's saw a period in Canada's immigration history when an expansionist approach was followed. The authors write that Canada has immense drawing power for immigrants because of large population growth rates in other countries. The cause and effect relationship here may be misspecified since drawing power for Canada is more likely a function of economic conditions in Canada alone, or of conditions in Canada relative to the migrants' home country and to other countries of possible immigration, plus of course immigration policies of other countries. The Green Paper believes that restrictive immigration policies now followed by other countries will continue into the future. Canada is an attractive country and therefore immigration

policy will not have to be worried about selling the country. But is it not also likely that other countries will seek only the highly skilled, job-specific immigrant? If so, Canada's competitive position may have to be defended and enlarged. In the longer term, the Report assumes that the domestic labour supply will grow at a rapid rate and there will be difficulties in finding employment for these people let alone immigrants. The Paper's labour-supply emphasis again comes out when it mentions that the products of the Canadian training and educational establishments must be assured jobs and implies first that immigrants prevent this and second that Canada's education facilities are underemployed. But immigrants create jobs as well as offer competition and Ontario's educational facilities may not be underemployed and their fuller utilization requires greater demand not less.

The Green Paper recognizes that all of the objectives for the working immigrant involve a great deal of labour market information which at present is based on the Job Vacancy Survey, the Canadian Occupational Forecasting Program, field information from Canada Manpower Centres, and Federal-Provincial consultation. This information is used to unite immigrants with available jobs. This approach assumes that jobs are created in Canada by non-immigrants' activities and then migrants fill the vacancies. Why not recognize that the opposite cause and effect relationship is at least possible: migrants enter Canada and jobs are created? The approach of the Report, either from a national or provincial viewpoint, is too restrictive.

The Report's view of the non-immigrant worker is predictable from the above analysis. The temporary migrant worker must not undermine the search for a permanent labour force and this type of worker must only be admitted if no qualified resident is available. Once again the policy

of Canadian residents first prevails as it did earlier for immigrants generally. There is an implicit dislike for this type of arrangement due in part to the problems with "guest" workers in Europe: work in "undesirable" jobs, substandard living conditions, social distress and antagonism.

When it comes time to establish criteria for evaluating prospective immigrants, the above objectives force a close relationship between the manpower and immigration authorities. This ties in with the underlying aim of making migrants job oriented. The Paper remarks that the present point system tries to do this, although other non-economic objectives allow the nominated immigrant to substitute some points based on kinship for points based on economic, job oriented criteria. The Paper assumes that nominated relatives with close kin in Canada will have an easier adjustment than other nominated relatives. The nominated class was created in 1967 in an attempt to reconcile the in part conflicting objectives of respect for the family unit and response to manpower requirements, and the Report notes that this reconciliation has not always been successful. Immigrants in this class may enter Canada even when labour market conditions dictate that independent immigration will be reduced, and thus may add to the slack labour market problem. The Report seems to be saying that the objective of manpower requirements should now take precedence over the objective of family union. This relates directly to the overall objective of the Report, namely making immigration job oriented.

The Paper is especially worried about admitting unskilled and semi-skilled workers. According to the authors, this worker type lowers job standards, competes with native-born Canadians, and generally should not be admitted. The Report wants a clearer distinction between immigrants

for the labour force and immigrants for family union; this suggests that its objective is to eliminate the nominated class.

National Interest and International Responsibility

The section just concluded stated that immigration policy needs to be selective and sensitive to economic needs. The Green Paper defines these as labour market needs and largely ignores the demand side. The authors desire immigration to make a positive contribution to society as a whole; they assume that this contribution is not achieved by dealing with individuals and groups in society; the aggregate takes precedent over the specific.

Before looking at some options from the Green Paper, its assumptions about the future in a world context need to be presented (Green Paper, Vol. 2, 41):

- 1) motivations to migrate will rise rapidly;
- 2) the source of migratory pressures will be distributed more and more unevenly;
- 3) Canada's attractiveness will improve.

As stated in the last section, these are based on projections of population growth in other countries, and certain objections to this methodology was brought up at that time. Be that as it may, the policy options in the Report are meant to be illustrative (i.e., not all inclusive) and not either/or (i.e., may be combined) (Green Paper, Vol. 2, 42-45):

- 1) Retain the present responsive system of resource allocation abroad; does not fix number of visas in advance;
- 2) Gear the program more intensively than now to meet economic and labour market objectives;
- 3) Develop and announce explicitly targets for the number of visas to be issued annually -- on a global basis, regionally, and possibly post-by-post;
- 4) Establish annually a global ceiling for the total immigration movement, specifying the priorities to be observed in the issuance of visas to different categories of immigrants within that ceiling.

The first option leaves things as they are now. The present policy was dealt with in Chapter II so that material will not be repeated here. The second option could be incompatible with the presence of a nominated class as defined now; there would be only two selection criteria: 1) close family ties, and 2) economic and labour market objectives. The third option entails relating national demographic policies to the targets; this assumes that quotas are required to effectively control immigration. The fourth option assumes that criteria could be developed to set the global ceiling and to allocate immigrants by priority groups. This option would appear to require, like option three, targets or quotas for regional dispersion of the ceiling and priorities.

Ontario needs to watch closely any move to the third or fourth options. They both involve establishing predetermined limits on the inflow of immigrants and could in effect conflict with Ontario's desire to reach some level of labour force growth. Given that the Paper implies that too many immigrants have come to Ontario, that province could face a severe fight if it thought that the ceiling was too low. Provinces may have an immigration policy by the Constitution, but any dispute is in effect settled by the Federal Government. But at the same time, any move to a more restrictive immigration policy makes it more crucial that Ontario become involved directly in their own immigration policy.

The option of leaving things as they are may be described as a non-policy or non-option. The time and effort would not have been expended if the Government in Ottawa believed that the issue should be left alone. The Paper shows concern with several aspects of present immigration policy: the change in source countries, the proportion of migrants in the sponsored and nominated categories, and settlement

patterns. These aspects are quite predictable from the policy changes made in 1967 which continued a trend set in 1962 by the Conservative Government of that day. The change essentially tried to end ethnic discrimination in Canada's immigration policy. One must be prepared to accept the consequences of this change, or else admit openly that discrimination by sending area and thus by ethnic origin is a part of Canada's policy.

The policy option of establishing a global ceiling for total immigration is also a non-option. If the global ceiling is meaningful in the sense that it is below the total number of people who want to enter Canada in any year, then some allocative mechanism must be established. This becomes essentially the third policy option of explicit targets for number of visas. At any rate, these two options need to be considered as one. It seems that the number of options in the Green Paper are two:

- 1) set the policy to more intensively meet labour market objectives;
- 2) establish quotas by skill, education, geographic or other criteria, and thus set a global ceiling.

The Paper recognizes that there is also the problem of how immigration processing facilities should be spread throughout the world. Present policy has failed to reach a firm conclusion on how much facility to provide, where to establish it, and what priorities to use. The Paper concludes correctly that this influences inflows almost as much if not more than the selection criteria themselves. Each of the options suggested in the Report have the problem of facility provision and distribution. One issue not mentioned is that of the province's requirements under some options. If the Federal Government introduces a new policy which does not meet the needs of Ontario then she will be

forced to establish her own facilities. Any duplication costs must be set against the benefits of a different Federal Policy which is more acceptable to Ontario. The same comment can be made by all the other provinces or regions. This issue is a difficult one and deserves at least as much discussion as the selection criteria.

The Report may be right in saying that the population "problems" of developing countries can not be solved by Canada admitting their un-useable labour. But it is odd that they argue that Canada can therefore follow a restrictive immigration policy. Canada's policy should not be restrictive because developing countries do not look to emigration to solve their problems; let these countries restrict emigration. The Paper supports a more equitable sharing of resources in place of a more generous immigration policy. If immigrants are kept out, the resources must be shared in some other way such as resource transfers. Resources, which are located in certain provinces as well as in Canada, are to be shared with the developing countries in place of allowing their people to enter Canada. Leaving aside the issue of whether the transfer policy is a substitute for people movement, the provinces should have an interest in deciding this issue for it may mean fewer people and fewer resource development in Ontario and more people and more resource useage in other countries.

On this question of aid and trade, the Green Paper realizes the dilemma between the developing countries' need for skilled workers and Canada's immigration policy which favours that group of people. In the end, the Report falls back on a belief in the right of freedom of movement for all people, although apparently sees no conflict between that statement and criteria for an immigrant's admittance.

Canada's other responsibility is to the refugee. The Paper be-

believes that there is support in Canada for the present refugee program which, as noted in Chapter II, has general and specific areas of interest. The Paper does remark about the altered nature of the refugee situation in that it is now global. There must then be some difference between that and the European refugee, otherwise the difference would not be mentioned. Perhaps, the authors think that refugees from non-European areas are less likely to meet the economic criteria faced by independent applicants and thus are likely to be social problems for Canada. This accounts for the Paper's desire for refugees to validate their claims for this status.

The Federal-Provincial Connection

This entire chapter has tried to point out the areas of provincial interest in the concept of immigration policy. This section will be more of a review of some of the points rather than ground for making new ones.

The Green Paper recognizes explicitly provincial interests in immigration in the areas of labour force, health and educational services, housing, to mention a few. It is ultimately the provinces which receive the benefits and bear the costs of an immigration inflow. The Report has not dealt with these issues before in anything but a summary manner, with the obvious exception of the labour force which is dealt with extensively in the Paper. Since many of these are provincial responsibilities, the Paper seems to argue that they should not effect immigration policy. Is this a true reflection of the authors' conception of the immigration issue?

At any rate, the Paper's answer to the question of provincial interest is cooperation in the field of immigration, especially manpower planning and programs of immigrant services. While this approach is

possible, discussion in other sections of this chapter indicated some possible areas of conflict. If these do arise, the provinces may choose a more independent stance than the Federal authorities desire to see. While this is an obvious possibility in Quebec because of her quarrels with Ottawa, other provinces, including Ontario, may have to meet her manpower and other needs from migration through independent planning.

Conclusion

This chapter presents the objectives of the Green Paper and several areas of possible conflict between its plan and Ontario. These must be taken as areas of possible conflict because no obvious differences of opinion appear in the Report. Later chapters deal with some aspects of the Ontario immigrant group and its influence on the Ontario economy and social system. After these aspects are studied, some more light will be shed on Ontario's concerns.

Chapter IV

Labour Force Comparisons of Native and Foreign Born

By Occupation

Immigrants to Ontario entering the labour force were not restricted to any specific sector of the economy, yet there was a tendency for them to concentrate in certain occupations if the distribution of native born is used for comparison. Table 3 shows that three occupational groups accounted for 38.71% of all immigrants in Ontario's labour force in 1971: clerical, service, and fabricating-assembling. Clerical workers, with 14.56%, accounted for the largest single proportion, while service, fabricating, construction, and sales occupations accounted for 12.90, 11.25, 8.55, and 7.97% respectively. Immigrants have higher proportions in natural sciences, medicine and health, artistic, service, processing, machining, fabricating, construction, materials handling than the native born. For immigrants by period of immigration the picture is only slightly different; all four immigration periods have higher proportions in artistic, service, processing, machining, and fabricating than the native born, while in natural sciences, construction, and materials handling, only the last three immigration periods have proportions which are higher than the native born. The medicine and health occupation is unique in that only those workers who immigrated between 1961 and 1971 have a higher proportion than the native born. Post-1946 immigrants have higher proportions in natural sciences, teaching, medicine, processing, machining, fabricating, construction, and materials handling than pre-1946 immigrants. Some trends are evident; moving through the periods from the before 1946 group, proportions rise continually (or almost so) for natural sciences, machining, and fabrication, and fall

TABLE 3
Labour Force, By Occupation, for Native Born, Foreign
Born by Period of Immigration, Ontario, 1971 (percent)

Occupation	Native Born	Foreign Born				Total
		Before 1946	1946 -50	1951 -60	1961 -71	
Managerial, Administrative	4.96	6.34	4.91	4.01	2.62	4.00
Natural Sciences	2.71	2.24	4.11	3.94	5.34	4.17
Social Sciences	1.05	.90	.99	.68	.82	.79
Religion	.22	.48	.22	.14	.18	.21
Teaching	4.18	2.17	3.45	2.59	3.60	2.96
Medicine & Health	3.69	2.70	3.48	3.02	5.24	3.75
Artistic, Literary	.98	1.10	1.08	1.08	1.13	1.10
Clerical	18.83	15.23	14.59	14.43	14.41	14.56
Sales	10.19	11.78	8.79	8.32	5.56	7.97
Service	9.69	15.31	11.63	12.82	12.35	12.90
Farming	4.70	4.69	4.87	3.33	1.65	3.15
Fishing, Hunting	.04	.03	.02	.01	.02	.02
Forestry & Logging	.42	.17	.22	.21	.11	.17
Mining	.67	.40	.72	.44	.22	.39
Processing	3.35	3.81	5.09	4.55	4.42	4.46
Machining	3.05	3.76	4.93	5.66	6.73	5.65
Fabricating, Assembling	7.10	8.42	10.19	11.23	12.91	11.25
Construction	5.28	4.90	7.56	9.84	8.91	8.55
Transport	4.23	2.70	2.17	2.31	1.31	2.02
Materials Handling	2.50	2.04	2.55	2.68	2.53	2.52
Crafts & Equipment	1.42	1.83	1.27	1.26	1.02	1.27
Other Occupations	2.15	1.93	2.50	2.57	2.84	2.56
Not Stated	8.58	7.11	4.67	4.87	6.08	5.57
Total, percent	100.00	100.00	100.00	100.00	100.00	100.00

Source: Canada, Census of Canada Occupations by Sex, Showing Birthplace,
Period of Immigration and Ethnic Group, for Canada and Regions:
94-734, Table 5.

continually (or almost so) for managerial, religion, clerical, sales, farming, transport, and crafts. The proportion in construction falls in the last period while services, processing, medicine have their ups and downs.

On the other side of the coin, the primary industries of farming, fishing, forestry, and mining do not attract the foreign born in as large a proportion as the native born. This is not surprising in view of the relative growth rates of these occupations and the immigrants' propensity for urban areas. The foreign born have lower proportions also in managerial, social sciences, teaching, clerical, sales, transport, and crafts. The managerial occupation includes the government sector with perhaps a greater propensity to hire Canadian born or Canadian citizens; note the low proportion for the group who immigrate between 1961 and 1971. The social sciences give a certain comparative advantage to the native born because of the nature of the subject matter, in contrast to the natural sciences which tend to be more universal. Teachers in Ontario may make it difficult for the foreign born to have their credentials recognized; if so, this accounts in part for this lower proportion. The fall in the clerical and sales occupations may be explained by the change in emphasis among immigration officers to more skilled occupations, especially since 1962, or by a relative lack of employment opportunities in these occupations. For Canada as a whole, shortages of labour in clerical and sales occupations were reduced between 1968 and 1971 (Epstein, 13). The same appear to be true in the occupations of managerial and teachers which were also seen to have proportions lower than the native born.

Distributions for male and female immigrants are clearly different from Table 4. The male foreign born pattern is almost identical to the

TABLE 4

Labour Force, by Occupation, for Native Born and Foreign Born
by Period of Immigration, by Sex, Ontario, 1971 (percent)

Occupation	Males						Females					
	Native Born	Before 1946	Foreign Born			Total	Native Born	Before 1946	Foreign Born			Total
			1946 -50	1951 -60	1961 -71				1946 -50	1951 -60	1961 -71	
Managerial, Administrative	6.49	8.31	6.01	5.14	3.52	5.22	2.25	2.41	2.74	1.76	1.18	1.75
Natural Sciences	3.95	3.18	5.82	5.52	7.80	5.91	.52	.36	.74	.80	1.37	.94
Social Sciences	1.01	.87	.84	.61	.76	.72	1.12	.97	1.29	.82	.92	.93
Religion	.30	.61	.31	.19	.27	.29	.07	.22	.04	.02	.04	.06
Teaching	2.48	1.44	2.22	1.89	3.30	2.30	7.20	3.62	5.86	4.00	4.08	4.17
Medicine & Health	1.32	1.36	1.42	1.32	2.42	1.68	7.88	5.38	7.53	6.39	9.78	7.59
Artistic, Literary	1.08	1.18	1.18	1.19	1.32	1.23	.80	.94	.88	.87	.81	.86
Clerical	8.84	8.68	6.49	6.24	6.19	6.62	36.46	28.28	30.52	30.70	27.62	29.24
Sales	10.95	11.17	8.62	8.35	5.94	8.06	8.83	12.99	9.12	8.25	4.93	7.82
Service	8.10	13.46	8.54	10.48	9.94	10.65	12.49	18.98	15.74	17.49	16.22	17.05
Farming	5.80	5.24	5.25	3.52	1.83	3.45	2.76	3.58	4.11	2.85	1.36	2.59
Fishing, Hunting	.06	.05	.01	.01	.03	.02	.01	.00	.03	.01	.01	.01
Forestry, Logging	.62	.25	.32	.30	.17	.25	.06	.02	.01	.02	.01	.02
Mining	1.04	.60	1.07	.66	.35	.60	.01	.00	.01	.01	.01	.01
Processing	4.36	4.64	6.26	5.32	5.06	5.25	1.58	2.15	2.79	3.01	3.38	3.00
Machining	4.39	5.32	6.93	7.94	10.04	8.08	.70	.65	.99	1.15	1.41	1.15
Fabricating, Assembling	8.95	9.87	11.61	11.95	12.75	11.85	3.84	5.54	7.40	9.79	13.18	10.16
Construction	8.18	7.30	11.33	14.68	14.23	13.04	.15	.11	.14	.23	.36	.25
Transport	6.40	3.94	3.20	3.37	2.08	3.03	.40	.22	.16	.19	.07	.15
Materials Handling	3.08	2.24	2.88	2.65	2.09	2.44	1.47	1.57	1.90	2.75	3.22	2.66
Crafts & Equipment	1.94	2.46	1.67	1.56	1.28	1.62	.49	.59	.49	.68	.60	.62
Other Occupations	2.91	2.50	3.32	3.22	3.51	3.21	.81	.80	.90	1.27	1.78	1.35
Not Stated	7.72	5.34	3.67	3.89	5.10	4.46	10.08	10.63	6.63	6.81	7.65	7.63
Total, percent	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Same as Table 3.

pattern for all foreign born in Table 3. The female labour force in Ontario is more concentrated in certain occupations, namely clerical, sales, service, teaching, and medicine, than the male labour force. This is true generally for both the native born and foreign born females; the exception is fabricating where there is a large difference in the proportions. Closer examination of this occupation shows a high proportion of foreign born females in textile, fur, and leather goods. The most recent female immigrants to Ontario have higher proportions in natural sciences, medicine, processing, fabricating, and materials handling than the total female foreign born. Scanning across the periods of immigration, the proportions rise continually for natural sciences, medicine, processing, machining, fabricating, and materials handling. This is a movement similar to the male foreign born and illustrates a convergence in these two streams of labour inflows.

While occupations by period of immigration are useful, it is more interesting to study immigration by birthplace in view of the Green Paper which suggests ceilings and quotas which could be by geographical area. The occupational breakdown reflects the education structure and the industrial structure or background of the immigrant. This comes out clearly in Table 5 where the highest proportions for those born in the U.S., the U.K., and Northern-Western Europe correspond to the highest proportions of the Canadian born, namely clerical, sales, service, managerial, fabricating. The U.S. proportions show a tendency towards the non-manufacturing occupations; this contrasts sharply with the proportions for immigrants from Southern Europe, Eastern Europe, and Northern-Western Europe who have a greater propensity to work in manufacturing based and construction occupations. The Asian group displays the highest proportions of any birthplace for natural sciences and

TABLE 5
Percentage Distribution of Population by Birthplace, Ontario, 1971

Occupation	Birthplace							
	Canada	U.S.	U.K.	Northern- Western Europe	Southern Europe	Eastern Europe	Asia	Others
Managerial, Administrative	4.96	8.73	6.66	3.89	.90	3.24	3.86	3.82
Natural Sciences	2.71	4.21	5.83	4.24	1.10	4.47	9.57	4.98
Social Sciences	1.05	2.82	.82	.65	.14	.66	1.26	1.33
Religion	.22	.98	.28	.19	.07	.18	.15	.11
Teaching	4.18	8.58	3.73	3.04	.77	2.03	4.62	5.18
Medicine & Health	3.69	4.13	3.86	3.63	.90	3.38	11.82	10.69
Artistic, Literary	.98	2.54	1.56	1.19	.40	.98	.80	1.16
Clerical	18.83	17.98	22.22	13.96	6.52	9.58	16.50	23.43
Sales	10.19	11.19	10.39	8.68	4.62	8.74	6.96	5.94
Service	9.69	8.77	10.70	10.50	17.30	13.44	15.49	10.93
Farming	4.70	3.17	1.39	7.52	1.98	4.87	.94	1.16
Fishing, Hunting	.04	.04	.02	.01	.03	.02	.00	.01
Forestry, Logging	.42	.27	.05	.37	.17	.23	.07	.04
Mining	.67	.27	.19	.59	.39	.74	.15	.24
Processing	3.35	2.12	2.61	3.96	7.20	6.15	1.93	2.27
Machining	3.05	2.15	4.45	6.20	7.15	6.96	3.80	4.12
Fabricating, Assembling	7.10	4.98	7.98	9.87	16.57	13.37	8.83	9.03
Construction	5.28	3.58	4.73	8.65	16.61	6.85	1.83	3.36
Transport	4.23	2.75	2.14	2.41	2.05	1.68	.87	1.29
Materials Handling	2.50	1.54	1.94	1.96	3.96	2.61	1.18	2.03
Crafts & Equipment	1.42	1.03	1.97	1.32	.69	1.07	.96	1.29
Other Occupations	2.15	1.57	1.75	1.95	4.07	2.91	1.96	1.89
Not Stated	8.58	6.55	4.53	5.24	6.41	5.83	6.42	4.75
Total, percent	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Same as Table 3.

medicine. More than any other group, the Southern European is concentrated in a narrow range of occupations, namely service, fabricating, and construction. Any reduction in immigration from this geographical area would affect labour supply in this small group of occupations whereas a cut back from any other group of countries or country would be felt more evenly and thus with possibly less significance over a wider spectrum of occupations. Male and female distributions appear in the appendix to this chapter. Many of the same trends reappear from Table 5. In conclusion, any attempt to limit immigration affects occupations differently depending on which group of countries is affected.

Table 6 indicates the proportion that each birthplace group is of each occupational group relative to the proportion that each birthplace group is of the total Ontario labour force. One indicates that the birthplace group make up the same proportion of the occupational group as it does of the labour force. This data shows where each birthplace group is most concentrated; two aspects of this table are investigated: 1) the range of the numbers; and 2) the occupations where each birthplace group exceeds one. Note that the Canadian born have the lowest range, namely from 1.20 to .80, indicating that they are less disproportionately distributed than the other birthplace groups. The U.S. has the largest range from 4.54 to .46; they make up a high proportion of some occupations relative to their proportion of the labour force (i.e., religion) and a low proportion of others (i.e., mining). The Asian group likewise has a large range indicating the same kind of disproportionate representation in some occupations, namely natural science and medicine. The other birthplace groups fall between these extremes.

In terms of values greater than one, U.S. immigrants are over-represented especially in social sciences, religion, artistic, and

TABLE 6

Proportion of Canadian and Foreign Born in Each Occupational Group
Relative to Proportion in Labour Force, Ontario, 1971

Occupation	Birthplace							
	Canada	U.S.	U.K.	Northern- Western Europe	Southern Europe	Eastern Europe	Asia	Others
Managerial, Administrative	1.06	1.86	1.42	.83	.19	.69	.82	.82
Natural Sciences	.87	1.34	1.86	1.36	.35	1.43	3.06	1.59
Social Sciences	1.08	2.88	.84	.66	.15	.67	1.28	1.36
Religion	1.01	4.54	1.29	.88	.31	.83	.71	.52
Teaching	1.09	2.23	.97	.79	.20	.53	1.20	1.35
Medicine & Health	.99	1.11	1.04	.98	.24	.91	3.18	2.88
Artistic, Literary	.97	2.49	1.53	1.17	.39	.97	.79	1.14
Clerical	1.07	1.01	1.26	.79	.37	.54	.94	1.33
Sales	1.07	1.16	1.09	.91	.48	.91	.72	.62
Service	.91	.82	1.01	.99	1.63	1.27	1.46	1.03
Farming	1.11	.74	.33	1.77	.47	1.14	.22	.27
Fishing, Hunting	1.18	1.26	.48	.33	.90	.43	.00	.24
Forestry, Logging	1.20	.77	.15	1.05	.48	.65	.20	.12
Mining	1.13	.46	.33	1.01	.66	1.25	.26	.41
Processing	.91	.57	.71	1.08	1.96	1.67	.53	.57
Machining	.80	.57	1.17	1.63	1.88	1.83	1.00	1.09
Fabricating, Assembling	.86	.60	.96	1.19	2.00	1.61	1.06	1.09
Construction	.85	.57	.76	1.39	2.68	1.10	.29	.54
Transport	1.18	.76	.59	.67	.57	.47	.24	.36
Materials Handling	1.00	.61	.78	.78	1.58	1.04	.46	.81
Crafts & Equipment	1.03	.75	1.43	.96	.50	.73	.70	.94
Other Occupations	.95	.69	.77	.86	1.79	1.28	.87	.83
Not Stated	1.11	.84	.59	.68	.83	.76	.83	.75
All Occupations	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Source: Same as Table 3.

managerial. It will be pointed out below that they make up only 1.34% of the labour force, but a greater percentage of those in these occupations. U.K. migrants are over-represented in managerial, natural sciences, religion, artistic, clerical, and crafts plus equipment operators; these migrants make up 7.92% of Ontario's labour force. The Northern and Western European immigrant has values over 1.16 for natural sciences, artistic, farming, machining, fabricating, and construction; with this birthplace group the manufacturing and construction values exceed one which is generally not true of the Canadian, U.S., or U.K. born. The Southern European immigrant to Ontario is found disproportionately in service, processing, machining, fabricating, construction, and materials handling occupations. Their values are notably low in the non-manufacturing, non-construction occupations. This birthplace group make up 7.52% of Ontario's labour force in 1971. The migrant from Eastern Europe displays much the same pattern as the previous group, namely values greater than one in processing, service, machining, fabricating, construction, and materials handling, but it is also "over-represented" in natural sciences, farming, and mining. This birthplace group is more diversified occupationally than the immigrant from Southern Europe. The implication of these last two groups is that any reduction in immigration from these geographical areas would be felt first and foremost in manufacturing and construction. The group of Asian immigrants has a wide range, being disproportionately represented in six occupations: natural sciences, social sciences, teaching, medicine, service, and fabricating; they made up 1.27% of the labour force of Ontario in 1971. They have values greater than one in all categories of the natural sciences and the social sciences, except for law and jurisprudence; the Asian group has a value of 4.94 for univer-

sity teaching, but less than one for elementary and secondary teaching. They are also consistently above one in the medicine and health occupations. Their service occupation value results from high values in food and beverage preparation and in apparel and furnishings. Table 4A.1 at the end of this chapter contains these relative proportions for sub-occupational groups of the major breakdown in Table 6. The former table is useful in that more detailed disproportional relationships are presented.

Having looked at the breakdown of each birthplace group by occupation and the disproportionate under or over representation in some occupational groups, the circle is completed in Tables 7, 8, and 9 where the distribution by birthplace for each occupation is presented. For all occupations in Table 7, the contribution of the Canadian, U.S., U.K., Northern-Western European, Southern European, Eastern European, Asian, and Others are 71.2%, 1.34%, 7.92%, 5.09%, 7.52%, 3.93%, 1.27%, and 1.73% respectively. So after the Canadian born, there are three subgroups: 1) U.K. and Southern Europe; 2) Northern-Western Europe and Eastern Europe; and 3) U.S., Asia, and Others. Looking at the contribution of the Canadian born to each occupation, four subgroups appear: 1) greater than 80%, fishing, forestry, mining, transport; 2) between 70% and 79%, managerial, social science, religion, teaching, medicine, clerical, sales, farming, materials handling, crafts; 3) between 60% and 69%, natural sciences, artistic, service, processing, fabricating, construction, other occupations; and 4) less than 60%, machining. Note the high Canadian percentages in the primary occupations of farming, fishing, forestry, and mining; the foreign born makes the greatest contribution to the labour force in natural sciences, service, processing, machining, fabricating, construction. In each of these areas, the

TABLE 7

Percentage Distribution of Ontario Labour Force for Each Occupation
by Birthplace, 1971

Occupation	Birthplace								Total
	Canada	U.S.	U.K.	Northern- Western Europe	Southern Europe	Eastern Europe	Asia	Other	
Managerial, Administrative	75.40	2.49	11.27	4.23	1.44	2.71	1.04	1.41	100.00
Natural Sciences	61.64	1.80	14.75	6.91	2.64	5.62	3.88	2.75	100.00
Social Sciences	76.57	3.86	6.65	3.37	1.10	2.65	1.63	2.36	100.00
Religion	71.87	6.08	10.23	4.49	2.35	3.25	.90	.90	100.00
Teaching	77.74	2.99	7.72	4.04	1.52	2.09	1.53	2.34	100.00
Medicine & Health	70.84	1.49	8.24	4.99	1.82	3.59	4.04	4.99	100.00
Artistic, Literary	68.84	3.34	12.13	5.95	2.93	3.80	1.00	1.98	100.00
Clerical	76.17	1.36	10.00	4.04	2.79	2.14	1.19	2.30	100.00
Sales	75.96	1.56	8.61	4.63	3.64	3.59	.92	1.08	100.00
Service	64.99	1.10	7.99	5.04	12.27	4.98	1.85	1.78	100.00
Farming	78.68	.99	2.58	8.99	3.50	4.49	.28	.47	100.00
Fishing, Hunting	83.97	1.69	3.80	1.69	6.75	1.69	.00	.42	100.00
Forestry, Logging	85.79	1.03	1.20	5.36	3.60	2.57	.26	.21	100.00
Mining	80.77	.61	2.58	5.12	4.96	4.91	.33	.71	100.00
Processing	65.04	.77	5.63	5.49	14.76	6.58	.67	.99	100.00
Machining	57.19	.76	9.27	8.30	14.15	7.19	1.27	1.88	100.00
Fabricating, Assembling	60.92	.80	7.62	6.06	15.03	6.33	1.35	1.88	100.00
Construction	60.41	.77	6.02	7.07	20.12	4.32	.37	.93	100.00
Transport	83.81	1.02	4.71	3.41	4.30	1.83	.31	.62	100.00
Materials Handling	71.05	.82	6.14	3.99	11.88	4.10	.59	1.40	100.00
Crafts & Equipment	73.43	1.00	11.35	4.89	3.78	3.06	.89	1.63	100.00
Other Occupations	67.57	.92	6.10	4.38	13.48	5.03	1.10	1.44	100.00
Not Stated	79.18	1.13	4.65	3.46	6.25	2.97	1.05	1.29	100.00
All Occupations	71.20	1.34	7.92	5.09	7.52	3.93	1.27	1.73	100.00

Source: Same as Table 3.

TABLE 8
Percentage Distribution of Ontario Male Labour Force for
Each Occupation by Birthplace, 1971

Occupation	Birthplace								Total
	Canada	U.S.	U.K.	Northern- Western Europe	Southern Europe	Eastern Europe	Asia	Other	
Managerial, Administrative	75.17	2.55	11.35	4.24	1.46	2.76	1.07	1.41	100.00
Natural Sciences	61.87	1.70	14.90	6.84	2.68	5.42	3.87	2.72	100.00
Social Sciences	77.31	3.75	8.33	3.08	1.30	2.58	1.50	2.13	100.00
Religion	71.53	5.97	10.55	4.58	2.33	3.26	1.01	.78	100.00
Teaching	72.37	3.89	9.25	4.47	1.82	2.68	2.36	3.16	100.00
Medicine & Health	65.57	1.60	8.98	5.00	2.81	5.62	4.85	5.59	100.00
Artistic, Literary	68.19	3.18	12.71	5.86	3.22	3.77	.99	2.08	100.00
Clerical	76.45	1.24	9.18	3.66	3.48	2.46	1.38	2.14	100.00
Sales	76.79	1.54	7.84	4.37	3.84	3.47	1.04	1.10	100.00
Service	64.89	1.01	8.01	4.24	13.28	4.63	2.50	1.43	100.00
Farming	80.35	.91	2.69	8.58	3.02	3.74	.27	.43	100.00
Fishing, Hunting	87.16	1.83	2.75	1.38	5.50	1.38	.00	.00	100.00
Forestry, Logging	85.61	.95	1.13	5.47	3.76	2.67	.27	.18	100.00
Mining	80.78	.61	2.58	5.16	4.95	4.90	.33	.69	100.00
Processing	66.89	.80	5.69	5.55	12.98	6.40	.62	1.07	100.00
Machining	56.90	.74	9.47	8.46	13.83	7.38	1.31	1.90	100.00
Fabricating, Assembling	64.74	.84	8.10	6.32	10.77	6.19	1.23	1.81	100.00
Construction	60.40	.76	6.03	7.10	20.07	4.32	.37	.94	100.00
Transport	83.69	1.01	4.75	3.38	4.38	1.85	.31	.63	100.00
Materials Handling	75.43	.87	5.54	3.84	8.86	3.87	.46	1.12	100.00
Crafts & Equipment	74.46	.95	11.14	4.66	3.42	3.00	.88	1.47	100.00
Other Occupations	68.82	.84	6.23	4.39	12.38	4.96	1.07	1.32	100.00
Not Stated	80.80	.85	4.25	3.03	6.01	2.83	1.04	1.17	100.00
All Occupations	70.86	1.26	7.64	5.22	8.09	4.18	1.26	1.48	100.00

Source: Same as Table 3.

TABLE 9
Percentage Distribution of Ontario Female Labour Force for
Each Occupation by Birthplace, 1971

Occupation	Birthplace								Total
	Canada	U.S.	U.K.	Northern- Western Europe	Southern Europe	Eastern Europe	Asia	Other	
Managerial, Administrative	76.63	2.19	10.86	4.22	1.34	2.48	.89	1.44	100.00
Natural Sciences	48.71	3.06	12.87	7.80	2.21	8.13	3.97	3.19	100.00
Social Sciences	75.43	4.02	8.55	3.83	.78	2.77	1.84	2.73	100.00
Religion	74.68	6.96	7.59	3.80	2.53	3.16	.00	1.90	100.00
Teaching	81.47	2.38	6.67	3.75	1.32	1.68	.96	1.17	100.00
Medicine & Health	72.56	1.45	8.00	4.99	1.50	2.92	3.78	4.80	100.00
Artistic, Literary	70.45	3.75	10.69	6.18	2.23	3.85	1.01	1.72	100.00
Clerical	76.05	1.42	10.36	4.20	2.49	2.00	1.10	2.37	100.00
Sales	74.21	1.61	10.24	5.16	3.20	3.86	.68	1.04	100.00
Service	65.10	1.23	7.96	5.96	11.10	5.37	1.10	2.19	100.00
Farming	73.06	1.29	2.24	10.37	5.13	7.01	.31	.61	100.00
Fishing, Hunting	47.37	.00	15.79	5.26	21.05	5.26	.00	5.26	100.00
Forestry, Logging	89.17	2.50	2.50	3.33	.83	.83	.00	.83	100.00
Mining	80.00	.00	3.33	.00	6.67	6.67	.00	3.33	100.00
Processing	57.33	.65	5.38	5.25	22.20	7.31	.84	1.09	100.00
Machining	60.57	.96	7.00	6.34	17.68	4.98	.75	1.56	100.00
Fabricating, Assembling	49.03	.67	6.13	5.22	28.31	6.79	1.73	2.12	100.00
Construction	60.88	1.62	5.09	4.63	22.22	4.63	.69	.69	100.00
Transport	87.14	1.37	3.62	4.12	1.87	1.37	.25	.37	100.00
Materials Handling	58.51	.67	7.88	4.44	20.53	4.76	.99	2.21	100.00
Crafts & Equipment	66.96	1.26	12.70	6.31	6.07	3.39	.95	2.60	100.00
Other Occupations	60.60	1.38	5.34	4.31	19.61	5.47	1.25	2.07	100.00
Not Stated	77.10	1.50	5.18	4.02	6.57	3.13	1.08	1.44	100.00
All Occupations	71.81	1.48	8.42	4.44	6.51	3.48	1.28	2.17	100.00

Source: Same as Table 3.

predominate foreign birthplace is: natural sciences -- U.K.; service -- Southern Europe; processing -- Southern Europe; machining -- Southern Europe; fabricating -- Southern Europe; construction -- Southern Europe. The contribution of Southern European immigration to Ontario's labour force must not be underemphasized. The group from the U.K. made substantial contributions to managerial, natural sciences, religion, artistic, clerical, and crafts occupations. The people from the U.S., Asia, and Others made relatively small contributions to all occupations in 1971, although their importance may have risen since 1971 with further inflows from Asia and other developing areas.

The male distributions in Table 8 do not differ markedly from the totals of Table 7. For two occupations, namely teaching and medicine, the foreign born contributed approximately 5% more to the male labour force than to the total labour force. The latter in particular would now count as an occupation where the male foreign born made a substantial contribution to Ontario's male labour force. The same relative positions are present in Table 8 as in Table 7, so they will not be dealt with again. For the female labour force, the foreign born made substantial contributions in natural sciences, service, fishing, processing, machining, fabricating, construction, materials handling, and crafts occupations; note that the list is longer than in the cases of the total labour force or the male labour force. Again the main foreign born participants in the female labour force come from the U.K. and Southern Europe, with Northern-Western Europe having a high percentage in farming. While the contribution of foreign born females to all occupations is about the same as for the total population, the difference between occupations where they make a significant contribution and where they make a small contribution is more evident.

The two main conclusions from this section are that immigrants tend to be represented only in certain occupations and that they have made major contributions to the labour force and especially to some specific occupations. These conclusions are put in the context of different birthplaces since the pattern is not the same for each one.

By Income

Another section of this report, namely Chapter VII will show that immigrants often take some time to find employment. The preceeding section of this chapter illustrates the concentration of recent immigrants to Ontario in certain occupations. From these two facts, it may be hypothesized that there is a direct relationship between years in Canada and level of income for the immigrant population. This hypothesis is true for male immigrants as seen from Table 10; the median income steadily rises for males as the period of immigration moves from the most recent, 1969-71, to the longest established, before 1946. The pattern, however, is not true for female immigrants; this group has a bimodal pattern with peaks for before 1946 and for 1965-1968. Females have significantly lower incomes than males for all groups; this reflects in part their lower average wages and in part their small proportions in full time employment.

The most crucial period seems to be immediately upon arrival. For both male and female immigrants, median incomes for period of immigration 1969-1971 are noticably lower than for other arrival dates. Problems of economic adjustment are likely to arise in this early period as opposed to after the migrant has been in Ontario for a longer time. A two thousand dollar difference in the male median income can not help but be significant.

TABLE 10

Median Total Employment Income by Sex, for All Workers
and Foreign Born by Period of Immigration, Ontario, 1971

	Males (\$)	Females (\$)
Period of Immigration:		
Before 1946	7905	3391
1946-1955	7881	3360
1956-1960	7520	3177
1961-1964	7214	3306
1965-1968	6981	3372
1969-1971	4774	2454
Total, Native and Foreign Born	7213	3328
Total, Foreign Born	7404	3246

Source: Special Tabulations; Census of Canada,
1971, Income of Individuals, Vol. 3,
Part 6, Table 17.

For males, the median income of the foreign born is higher than the median income of the total male labour force. By inference, the median income of the native born is lower than the median income of the foreign born. The reverse is true for the female labour force in Ontario.

Length of residence in Canada has been shown to be directly related to income for the immigrant, but as Table 11 shows, this hypothesis is not upheld for all birthplaces. For males, only those from Southern Europe, Eastern Europe, and the West Indies prove this hypothesis; for females, no birthplace fulfills the hypothesis, but those from Southern Europe come close. Little can be said in a general way about when the different birthplace groups peaked since no pattern emerges from the table. For all groups, there is a significant difference between median employment income immediately upon arrival and median income after residing in Canada six to three years. For the two most recent groups of immigrants, median income of males and females is highest for those from the U.S. and the U.K. (the all others group of females is, however, higher, but the heterogeneous nature of this group prevents close comparisons).

Looking at total median employment income by birthplace, the rank ordering for both sexes appear in Table 11. The groups above the medium for males are U.S., U.K., Africa, All Others, Eastern Europe, Northern and Western Europe, and for females are All Others, Asia, Africa, U.K., West Indies, U.S., Eastern Europe. The two lists are different especially with reference to the Asian and West Indian groups appearing only on the females list. This suggests that the labour market in Ontario for females differs from the same market for males and allows different groups to attain relatively high medium incomes. Some interesting individual comparisons also appear. The relatively high

TABLE 11

Median Total Employment Income for Birthplace by
Period of Immigration, Ontario, 1971

Birthplace	Total (\$)	Before 1946 (\$)	1946- 1955 (\$)	1956- 1960 (\$)	1961- 1964 (\$)	1965- 1968 (\$)	1969- 1971 (\$)	Rank of Total Income	Rank for 1969-71 Only
Males:									
U.S.	9131	9879	8294	9578	9628	9964	6779	1	1
U.K.	8267	7551	8925	8603	8831	8553	6048	2	2
Northern & Western Europe	7477	7167	7523	7674	7625	7592	5324	6	3
Southern Europe	6355	7242	7190	6523	6130	5766	3908	8	9
Eastern Europe	7645	7949	7913	7479	6502	6506	4818	5	6
Asia	6656	8512	7489	7721	8340	7051	4019	7	7
Africa	8140	9331	8828	10133	9245	8143	5015	3	4
Latin America	5930	12131	7354	6456	6624	6031	4010	10	8
West Indies	5936	10026	9101	8767	7601	6039	3621	9	10
All Others	8046	12053	10499	8985	9396	7860	4899	4	5
Total Foreign Born	7404	7905	7881	7520	7214	6981	4774		
Females:									
U.S.	3441	3807	3336	2882	3241	3708	2696	6	3
U.K.	3482	3359	3557	3465	3780	3686	2774	4	2
Northern & Western Europe	3083	3033	3089	3026	3290	3415	2518	8	5
Southern Europe	2766	3042	3067	2810	2753	2671	1960	10	10
Eastern Europe	3433	3296	3713	3542	2886	3021	2059	7	9
Asia	3634	3869	3401	3304	4349	4283	2646	2	4
Africa	3559	4068	3663	3357	4030	3952	2393	3	7
Latin America	2996	5153	3237	2936	3644	3247	2109	9	8
West Indies	3470	4268	4235	4490	4381	3708	2412	5	6
All Others	3883	3708	3458	4389	4601	4349	3068	1	1
Total Foreign Born	3246	3391	3360	3177	3306	3372	2454		

Source: Special Tabulations.

ranking for all periods of immigration and for the total of the African immigrant is noteworthy in view of that continent's relative development; for males in particular, African born residents have much higher median incomes than immigrants from Asia or Latin America. The continental European migrant ranks by total income as, first, Eastern Europe, second, Northern and Western Europe, third, Southern Europe. But by period of immigration, the Eastern European migrant has a higher median income than those from Northern and Western Europe only in the groups before 1946 and 1946-1955; the difference between these two birthplace groups is substantial for the three most recent periods of immigration, narrows rapidly for 1956-1960 group, and their spreads apart but with the Eastern European group having a higher median income. Note that sex seems to make a difference for the migrant from the U.S.; while other causes have not been controlled for as yet, the male migrant ranks first while the female migrant ranks sixth. Immigrants from the West Indies generally have a higher median income than those from Latin America; the main exception is the group, both male and female, who came before 1946. Finally, comparing the birthplaces ranked by the group which migration between 1969-1971 with birthplaces ranked by median total employment income regardless of period of immigration, shows that males are steadier in terms of keeping the same rank once the positions are established. The only significant change for the male migrant is the relative rank deterioration of those people from Northern and Western Europe. The Latin American group is the only other one to change by more than one rank. For the females, the picture is more unstable: migrants from the U.S., U.K., and Northern and Western Europe move to lower ranks, while those from Asia, Africa, and Eastern Europe improve their relative ranking.

While foreign born workers tended to have higher median incomes for males and lower median incomes for females than the entire labour force, this pattern varied with different occupational groups. Tables 12 and 13 present the relevant data. For males, all migrants taken together have higher median incomes for managerial, natural science, teaching, artistic, clerical, sales, farming, fishing, forestry, processing, machining, fabricating, construction, transport, and materials handling than the entire labour force; this implies that the native born have lower median incomes than the foreign born in all these occupations. For females, all migrants have higher median incomes for natural sciences, social sciences, medicine, artistic, clerical, sales, service, fishing, forestry, mining, processing, machining, construction, transport, materials handling, and crafts than the entire labour force. The only reason for female immigrants having lower median incomes than the entire labour force is the relatively low median incomes of the most recently arrived group. The general conclusion is that immigrants appear to have done quite well in terms of income relative to the native born. Table 4A.5 in the appendix of this chapter shows the rank order of occupations by median total employment income for males by period of immigration; the interested reader may see how the order by income of the foreign born changes with time spent in Canada.

Table 12 shows that there was a consistent increase in median male income with length of residence for all occupations together, but not for all occupations separately. Those in managerial, clerical, sales, and processing occupations shows consistent gains through the periods of immigration. Several other occupations show consistent gains from the 1969-71 group to the 1946-1955 group: service, forestry, machining, fabricating, construction, transport, crafts. For females in Table 13,

TABLE 12

Median Total Employment Income of Males for All Labour Force and Foreign Born,
by Occupation and Period of Immigration for Immigrants, Ontario, 1971

Occupation	All Labour Force (\$)	Foreign Born						Total (\$)
		Before 1946 (\$)	1946- 1955 (\$)	1956- 1960 (\$)	1961- 1965 (\$)	1966- 1968 (\$)	1969- 1971 (\$)	
Managerial, Administrative	14461	16615	14838	14237	12876	12037	11488	14619
Natural Sciences	9348	11524	10121	10254	10028	9223	6037	9605
Social Sciences	12155	16483	10144	9094	10979	8713	6186	10609
Religion	5218	5075	5386	5347	5606	5498	3273	5156
Teaching	9943	11550	9570	10467	11759	10398	7907	10022
Medicine, Health	15849	18755	15006	16714	15360	11836	6946	13878
Artistic, Literary	7031	8116	7790	8191	7689	7037	4283	7478
Clerical	6093	6745	6545	6298	6014	5927	3667	6179
Sales	7550	8491	8203	7663	7152	6839	4772	7778
Service	5484	5267	6026	5377	4844	4710	3016	5275
Farming	3697	4326	5587	4331	4010	4146	2708	4608
Fishing, Hunting	3704	4284	5754	4238	--	4719	3119	4579
Forestry	4432	4466	6062	5866	5745	5647	3321	5530
Mining	7582	7591	7922	7713	8939	6814	4227	7579
Processing	6607	7350	7150	7085	6623	6230	4066	6800
Machining	7075	7359	7692	7627	7395	7086	4697	7265
Fabricating, Assembling	6825	7033	7340	7228	6998	6616	4344	6899
Construction	6811	7060	7782	7481	7138	6753	4546	7209
Transport	6529	6935	7045	6738	6178	6023	4132	6689
Materials Handling	5394	6821	6364	5639	5631	5639	3583	5975
Crafts & Equipment	7973	8182	8240	8001	7739	7420	4662	7848
Others	4950	6094	6153	5635	5303	5599	3766	5702
Not Stated	5886	5774	6825	6009	5584	5626	3854	5874
All	7213	7905	7881	7520	7214	6981	4774	7404

Source: Special Tabulations; Census of Canada, 1971, Income of Individuals, Vol. 3, Part 6,
Table 17.

TABLE 13

Median Total Employment Income of Females for All Labour Force and Foreign Born,
by Occupation and Period of Immigration for Immigrants, Ontario, 1971

Occupation	All Labour Force (\$)	Foreign Born						Total (\$)
		Before 1946 (\$)	1946- 1955 (\$)	1956- 1960 (\$)	1961- 1964 (\$)	1965- 1968 (\$)	1969- 1971 (\$)	
Managerial, Administrative	6345	7563	6248	6059	6116	5275	3887	6194
Natural Sciences	5128	5513	5926	5635	5116	5604	3682	5298
Social Sciences	4625	5577	5342	4820	6085	5434	4066	5225
Religion	3260	1554	2625	3123	2293	3048	2431	2112
Teaching	5651	6512	5306	5063	5916	5870	3699	5391
Medicine, Health	4165	4755	4592	4528	4970	4830	3602	4563
Artistic, Literary	3491	3744	3840	3879	4398	4401	3311	3888
Clerical	3524	3938	3747	3559	3714	3765	2573	3625
Sales	2347	2945	2603	2543	2485	2355	1806	2600
Service	1998	2437	2428	2361	2470	2350	1720	2350
Farming	1483	965	870	1027	1294	1384	1250	1000
Fishing, Hunting	1849	--	2279	3463	--	2273	--	2483
Forestry	1280	1894	1987	1121	--	4894	--	2072
Mining	5404	--	8465	5374	--	4966	4471	6402
Processing	2749	2862	3165	3056	2971	2863	1881	2937
Machining	3323	4196	3743	3418	3589	3114	2336	3423
Fabricating, Assembling	3064	3301	3343	3169	3060	2821	2044	3020
Construction	4063	4722	5064	4283	4595	4539	3348	4518
Transport	2555	2921	2502	2874	1312	3082	874	2609
Materials Handling	2668	3050	3164	2893	3061	2648	1721	2840
Crafts & Equipment	3297	4081	3547	3424	3126	3370	2133	3425
Others	2782	2906	3206	2951	3003	2912	1918	2898
Not Stated	2951	2488	2163	2047	1991	2346	1834	2191
All	3328	3391	3360	3177	3306	3372	2454	3246

Source: Same as Table 12.

only those in sales and mining show consistent gains through the period of immigration. Therefore, for males, the pattern for the group is not always consistent with the one for the occupations.

The more favourable income position of U.S. male immigrants, apparent from Table 11, is due in part to their high ranking in the relatively higher paying occupations of managerial (first), social science (second), medicine (first), teaching (second), and natural science (third). They tend to rank lower in the other occupations with lower median incomes (see Table 14). The relatively good ranking of those males from Eastern Europe shows up clearly in the third half dozen occupations in this table; in fact the only reason why people from this area have lower median incomes than those from the U.S. and Northern and Western Europe is the poorer incomes in processing, machining, fabricating, and construction. For males, the immigrant from Latin America has generally the lowest median income. Of the four areas of Africa, Asia, Latin America, and the West Indies, African immigrants have often the highest median income. The female data in Table 15 is difficult to analyze because there are only a few people in some of these groups. One dominant point is the high ranking throughout most occupations of the females from Eastern Europe.

The income comparisons to this point control for birthplace, sex, period of immigration, and occupation, although not all at the same time. The next section of this chapter attempts to reduce the comparison down to a similar mode for the native and foreign born by controlling for other variables.

Further Income Considerations

The preceeding section and more precisely Table 10 showed that, while not perfect, there is a positive relationship between length of

TABLE 14

Median Total Employment Income of Males for All Labour Force and Foreign Born,
by Occupational Group and Birthplace, Ontario, 1971 (\$)

Occupation	Birthplace										Total	All Labour Force
	U.S.	U.K.	Northern- Western Europe	Southern Europe	Eastern Europe	Asia	Africa	Latin America	West Indies	All Others		
Managerial, Administration	19866	13731	13574	14464	17456	11814	15127	10379	10102	12477	14619	14461
Natural Sciences	10038	10291	9195	7786	10376	8427	8894	8240	7905	8788	9605	9348
Social Sciences	11322	10619	9249	8304	13952	9172	9698	8130	10180	10332	10609	12155
Religion	5589	5587	5061	3110	4550	5548	5573	3256	5381	3557	5156	5218
Teaching	10821	10579	8905	8124	11379	9502	9208	8082	9185	9996	10022	9943
Medicine, Health	17720	15350	11611	11703	16212	11608	15640	11026	10619	17128	13878	15849
Artistic, Literary	7589	7907	7462	6446	7302	5666	9503	7298	5955	7561	7478	7031
Clerical	5927	6629	6255	5704	6683	5285	5459	4890	4674	5537	6179	6093
Sales	8867	8347	7773	6506	8219	6484	6778	5925	5379	7452	7778	7550
Service	5313	5951	5738	4960	5267	4434	4633	4003	4191	3915	5275	5484
Farming	3743	3612	5512	4689	4691	3830	4813	2767	2698	4707	4808	3697
Fishing, Hunting	3486	2201	3334	7047	5504	--	--	--	--	--	4579	3704
Forestry	4379	3438	5351	6120	6816	4379	--	2099	7006	--	5530	4432
Mining	7350	7144	8192	7237	7937	5118	7366	4839	4934	6108	7579	7482
Processing	7728	7545	7190	6384	6912	5407	6931	4731	4661	5262	6800	6607
Machining	7690	7707	7766	6878	7338	6009	6664	6047	5746	6329	7265	7073
Fabricating, Assembling	7465	7659	7342	6354	6867	5789	6294	5499	5539	6545	6899	6825
Construction	6814	7808	7568	6946	7235	6278	7844	5774	6490	7512	7209	6811
Transport	6539	6984	6838	6419	7051	4573	4735	5415	5423	7302	6689	6529
Materials Handling	5497	5978	5984	6006	6618	4408	4815	4665	4488	3676	5975	5394
Crafts & Equipment	8704	8325	8023	6860	7824	6603	6751	4610	6183	6644	7848	7973
Others	4695	6318	5873	5531	6036	4602	4285	4196	3754	4880	5702	4950
Not Stated	6154	6511	6155	5425	6112	4919	5530	4308	4655	5157	5874	5886

Source: Special Tabulations.

TABLE 15
Median Total Employment Income of Females for All Labour Force and Foreign Born,
by Occupational Group and Birthplace, Ontario, 1971 (\$)

Occupation	Birthplace											All Labour Force
	U.S.	U.K.	Northern- Western Europe	Southern Europe	Eastern Europe	Asia	Africa	Latin America	West Indies	All Others	Total	
Managerial, Administration	6893	5666	5969	5537	8948	5900	5055	6034	5831	5465	6194	6345
Natural Sciences	5334	5204	5454	4960	5913	4897	5114	3356	4237	4828	5298	5125
Social Sciences	5145	5041	4303	3960	7001	5662	6523	5046	5627	5712	5225	4625
Religion	1789	1901	1649	3307	2594	3928	--	--	--	--	2112	3261
Teaching	5576	5695	4890	4922	5676	4897	5653	4433	5452	5428	5391	5451
Medicine, Health	4617	4385	4150	3885	5315	5397	4801	4367	4350	4749	4563	4155
Artistic, Literary	3547	4032	3922	2993	3795	4300	5635	2655	3289	5412	3888	3491
Technical	3466	3723	3564	3313	4003	3330	3510	3397	3581	3621	3625	3524
Services	2539	2503	2545	2522	3160	2230	2161	2051	2853	2194	2600	2347
Domestic Service	1881	2211	2253	2456	2638	2248	2160	2095	2310	2009	2350	1944
Housekeeping	953	849	762	1487	1104	1038	557	876	469	1559	1000	1483
Fishing, Hunting	--	1257	988	3633	2401	--	--	--	--	--	2483	1849
Forestry	2368	629	1636	5152	2076	--	--	--	--	--	2072	1280
Mining	--	--	5284	5402	10086	--	--	--	--	--	6402	5404
Food Processing	2396	3149	2918	2852	3256	2282	3794	1838	2530	2695	2937	2744
Textile Milling	4260	3508	3834	3120	3772	3365	2386	1902	3488	6451	3423	3323
Manufacturing, Assembling	3060	3334	3269	2868	3353	2611	2805	2372	2701	3633	3020	3064
Construction	4420	4675	4482	4415	4895	5975	--	--	3040	4548	4518	4063
Transport	2338	2106	1982	4394	3983	1313	--	--	5208	--	2609	2257
Materials Handling	2627	2912	2986	2836	3112	2064	2318	1875	2188	1976	2840	2665
Machinery & Equipment	3887	3616	3159	3119	4036	2199	3358	4533	2717	4186	3425	3237
Truck Drivers	2707	3135	3175	2673	3424	3084	3539	2152	2412	2722	2894	2782
Unemployed - Stated	1922	2630	1965	1855	2264	2351	2756	2078	2660	2547	2191	2955

Source: Special Tabulations.

residence in Canada and income level. The Statistics Canada Micro Data File for 1973 will be used in this section to bring out some further income similarities and differences between Ontario's Canadian born and foreign born populations. These factors are important since income is the basis of consumption. Also, some people believe that migrants take relatively low paying jobs, excluding the native born from them. Finally, if discrimination is present in income payments, it will become at least implied by some of the data used here.

Table 16 contains relative frequency distributions for the Canadian and foreign born, total and by three periods of immigration, by total income which is defined in the Micro File as the sum of total earnings, net income from roomers and boarders, net income from investment, total government transfer payments, retirement pensions, superannuation and annuities, and other money income. The distribution of incomes between Canadian born and all foreign born is very similar; 16.5% and 17.6% are under \$3,000 for the native and foreign born respectively while 35% and 35.3% are under \$7,000 for the same groups. This provides some evidence that migrants assimilate to Ontario and do not show marked income differences either by absolute level (as seen in the preceeding section) or frequency distribution. Contrasts are more evident by period of immigration. Those who came before 1964 appear to have settled into the pattern which shows up for the native born and all foreign born. For income purposes, they are hardly distinguishable by distributional profile. Those who migrated between 1964 and 1972 are more frequently found in the higher income levels; only 11.2% are under \$3,000 and 28.3% are below \$7,000 which are the lowest percentages of the groups dealt with in Table 16. This fact could be due in part to the change in immigration regulations in 1962 which stressed directly education,

TABLE 16

Income Distribution for Canadian and Foreign Born,
Ontario, 1973: Relative Frequency (%)

	Canadian Born	All Foreign Born	<u>Period of Arrival - Foreign Born</u>		
			Before 1946	1964- 1972	1973- 1974
Under \$2,000	9.4	10.2	8.9	8.2	46.7
\$2,000 - 2,999	7.1	7.4	8.9	3.0	7.6
\$3,000 - 3,999	4.4	4.6	4.4	3.8	13.0
\$4,000 - 4,999	5.2	5.1	5.2	4.5	5.4
\$5,000 - 5,999	4.7	3.8	3.6	4.7	3.3
\$6,000 - 6,999	4.2	4.2	4.1	4.0	6.5
\$7,000 - 7,999	4.9	4.5	4.0	5.9	4.3
\$8,000 - 8,999	5.0	4.5	4.0	6.1	2.2
\$9,000 - 9,999	4.7	4.6	4.7	4.9	1.1
\$10,000 - 10,999	5.7	5.3	4.7	7.2	3.3
\$11,000 - 11,999	5.0	4.8	4.7	5.8	1.1
\$12,000 - 12,999	5.0	5.9	6.2	5.8	1.1
\$13,000 - 13,999	4.6	4.8	4.7	5.6	--
\$14,000 - 14,999	4.8	4.5	4.6	4.9	--
\$15,000 - 16,999	6.9	8.0	7.8	9.8	--
\$17,000 - 19,999	7.7	7.7	8.2	7.2	2.2
\$20,000 - 24,999	5.8	6.0	6.6	5.2	--
\$25,000 and Over	4.8	4.2	4.6	3.3	2.2
Sample Size	5248	2376	1712	572	92

Source: Micro Data File Income 1973, Statistics Canada.

employment, and other labour market criteria for admission; with the direct relationship between income and education, the hypothesis that migrants under these regulations would be farther up the income distribution ladder is supported. In stark contrast, immigrants of most recent vintage appear largely at the lower end of the income spectrum: 54.3% below \$3,000 and 82.6% below \$7,000. Only 68.5% of this group are employed in 1973 compared to 83.2% of those who arrived between 1964 and 1972; this accounts for part of the difference in frequency distributions between these two groups of immigrants. However, the 68.5% is about the same as the percentage for those who arrived before 1964 and the Canadian born. Twenty-five percent of the most recent arrivals have no income; this percentage is well above the 2% or 3% for all other groups in Table 16. These adjustment problems, while severe, should be overcome if higher educational levels make the adjustment easier; the most recent migrants to Ontario have relatively high levels of schooling: only 15.2% have less than 9 years of schooling compared with 35.1% for those who came between 1964 and 1972, 43.3% for those before 1964, and 28.2% for the Canadian born. Immigration regulations which stress education and training accept this hypothesis as true and if so the problem is a short term one only. Table 4A.6 presents some data on other measures of income in order to compare the differences among each of them.

Table 17 indicates that the head of household's total earnings is lower for the foreign born who arrived before 1964 and higher for the immigrants who arrived between 1965 and 1974 than the Canadian born. To what extent is this pattern maintained when level of education is controlled for? Comparing first the Canadian born with the migrants who arrived before 1964, the latter have higher mean earnings at all educa-

TABLE 17

Breakdown of Head's Total Earnings by Immigration
Status and Education, Ontario, 1973 (\$)

	Mean	Standard Deviation	Number
Canadian Born:	7432	6735	5248
0 - 8 Years	4509	5347	1482
9 - 13 Years	7736	6014	2653
14 or More Years	10597	8248	1113
Arrived Before 1964:	7130	6537	1712
0 - 8 Years	4627	5434	742
9 - 13 Years	8017	5867	645
14 or More Years	11084	7623	325
Arrived 1965-74:	7546	5833	664
0 - 8 Years	6328	4396	215
9 - 13 Years	6829	5035	238
14 or More Years	9595	7267	211

Source: See Table 16.

tion levels. The paradox of lower mean earnings for all levels of education appears to stem from the numbers in each educational group. The Canadian born have a higher proportion in the higher education and higher income groups than the foreign born who arrived before 1964; since the means for each immigration status group are weighted means where the weights are the numbers in each group, this accounts for the difference. The important point is that when education is controlled for, those who arrived before 1964 have uniformly higher earnings than the Canadian born. Those who arrived between 1965 and 1974 show lower mean earnings for 9-13 years and 14+ years of education than the other groups. Returns to these levels of schooling are not paid fully immediately upon arrival but do accrue to the migrant as he or she stays in Canada as the relatively high mean earnings for those who arrived before 1964 shows. The relatively high mean earnings of those with elementary school or less is clearly odd; the most recent migrant with the lowest level of formal education leads by a wide margin persons with similar schooling in the other two groups.

The hypothesis has often been put forward that earnings and education are positively related. All three groups support this hypothesis in that mean earnings rise as one move from 0-8 years education to 14+ years education. There is not a great difference for those who came to Canada most recently between having 0-8 years and 9-13 years education; the economic system does not reward this difference upon arrival. For this group, however, more education than secondary level does receive significantly higher mean earnings. Table 4A.7 in the appendix amplifies the above by presenting a more detailed breakdown of the educational levels.

Tables 18 and 19 present analysis of earnings data by age for the Canadian and foreign born populations for males and females respectively. Each of the three groups of males, namely Canadian born, arrived before 1964, and arrived 1965-74, show a general shift toward higher mean earnings up to the age group 26 to 45 followed by declines. The three female groups in Table 19 exhibit the same pattern. Returning to Table 18, for the two youngest age groups immigrants who arrived before 1964 display the highest mean earnings. This is true also for all levels of education except age group 26 to 45 where the Canadian born with 14+ years schooling has higher mean earnings. Those migrants who arrived most recently again have the lowest earnings at all age-education levels for the two youngest age groups. For males, age 46 to 64, the Canadian born have slightly higher mean earnings but on closer inspection this is only true for those with 14+ years education when compared with the foreign born who arrived before 1964; this suggests that the Canadian born with the highest levels of education earning higher incomes than the foreign born with the same formal schooling and that this difference enlarges with age. This implies either systematic discrimination or a failure to utilize highly trained foreign born manpower to the fullest extent. Or, the foreign born in this education group may be employed in relatively low paying jobs; this is investigated below.

The female results in Table 19 are a real contrast. For age group 26 to 45, both foreign born groups have higher earnings than the Canadian born; this is true for all three levels of educational attainment although only those who arrived most recently have a noticeable difference at the 14+ level which is a striking variation from the male results in Table 18 for this age group. For age group 46 to 64, those

TABLE 18

Breakdown of Male Head's Total Earnings by Age,
Immigration Status, and Education, Ontario, 1973 (\$)

	Mean	Standard Deviation	Number
<hr/>			
Age - 14 to 25:			
Canadian Born -	6518	3650	511
0 - 8 Years	4724	4517	41
9 - 13 Years	6987	3546	320
14+ Years	5735	3457	150
Arrived Before 1964 -	8157	3943	50
0 - 8 Years	9028	3854	5
9 - 13 Years	8987	4423	24
14+ Years	7002	3195	21
Arrived 1965 - 1974 -	5764	4043	102
0 - 8 Years	8359	3366	26
9 - 13 Years	4529	4012	49
14+ Years	5507	3636	27
Age - 26 to 45:			
Canadian Born -	11349	5947	1758
0 - 8 Years	9146	5410	319
9 - 13 Years	10784	4942	962
14+ Years	13961	7139	477
Arrived Before 1964 -	11466	5364	501
0 - 8 Years	9925	5323	147
9 - 13 Years	11370	4648	216
14+ Years	13258	5925	138
Arrived 1965 - 1974 -	9542	5735	376
0 - 8 Years	8231	3595	108
9 - 13 Years	9276	4428	121
14+ Years	10723	7493	147

	Mean	Standard Deviation	Number
Age - 46 to 64:			
Canadian Born -	9697	7132	1242
0 - 8 Years	6955	4692	440
9 - 13 Years	9733	6653	616
14+ Years	16065	9120	186
Arrived Before 1964 -	9588	5737	518
0 - 8 Years	7632	4365	227
9 - 13 Years	10012	4674	196
14+ Years	13386	8100	95
Arrived 1965 - 1974 -	8609	6119	58
0 - 8 Years	6981	3554	28
9 - 13 Years	7813	6670	16
14+ Years	12775	7835	14
Age - 65 to 75:			
Canadian Born -	1729	3973	387
0 - 8 Years	1050	3032	212
9 - 13 Years	2553	4694	138
14+ Years	2550	5047	37
Arrived Before 1964 -	2025	4362	228
0 - 8 Years	1095	2409	133
9 - 13 Years	3067	4828	67
14+ Years	3951	7896	28
Arrived 1965 - 1974 -	1113	2403	11
0 - 8 Years	852	2270	8
9 - 13 Years	1810	3135	3
14+ Years	--	--	--

TABLE 4A.1 -- Cont'd.

Occupations	Canada	U.S.	U.K.	Northern- Western Europe	Southern Europe	Eastern Europe	Asia	Other
Farming, Horticultural, Animal Husbandry and Related	1.11	.74	.33	1.77	.47	1.14	.22	.27
Farmer	1.14	.69	.22	1.97	.17	1.25	.09	.09
Farm Management	.95	.60	.49	3.34	.40	1.84	.20	.25
Other	1.09	.78	.39	1.52	.67	1.02	.30	.40
Fishing, Hunting, Trapping and Related	1.18	1.26	.48	.33	.90	.43	--	.24
Forestry and Logging	1.20	.77	.15	1.05	.48	.65	.20	.12
Mining and Quarrying (including oil & gas)	1.13	.46	.33	1.01	.66	1.25	.26	.41
Processing Occupations	.91	.47	.71	1.08	1.96	1.67	.53	.57
Mineral Ore Treating	1.09	.70	.34	.74	1.44	1.04	.24	.27
Metal Processing	.90	.53	.79	.96	1.91	2.06	.50	.63
Clay, Glass, Stone Production, Forming and Related	.89	.67	.67	1.19	2.48	1.12	.38	.56
Chemicals, Petroleum, Rubber, Plastic and Related	.99	.76	1.09	.99	1.11	1.01	.72	.96
Food, Beverage and Related	.79	.41	.66	1.45	2.81	1.95	.59	.62
Wood Processing	1.23	.69	.21	.55	.03	.74	--	.34
Pulp and Papermaking	1.18	.88	.35	.70	.54	1.14	.12	.12
Textiles	.91	.43	.76	.69	2.08	1.77	.64	.84
Other	.84	.92	.83	1.43	1.48	2.90	.97	.64
Machinery and Related	.80	.57	1.17	1.63	1.88	1.83	1.00	1.09
Metal Machining	.75	.55	1.53	1.99	1.65	2.08	1.12	.98
Metal Shaping and Forming	.83	.57	.90	1.40	2.09	1.67	.96	1.26
Wood Machining	.94	.50	.47	1.06	2.29	1.02	.53	.77
Clay, Glass, Stone and Mat. Machining	.83	.64	.97	1.62	1.85	1.62	1.08	1.09
Other	.83	.53	1.37	1.39	1.60	2.07	.88	.65
Product Fabricating, Assembling and Repair	.86	.60	.96	1.19	2.00	1.61	1.06	1.09
Metal Products	.90	.57	1.14	2.21	1.40	1.70	1.00	.80
Electrical, Electronic and Related	.91	.64	1.30	1.28	1.23	1.21	1.19	1.23
Wood Products	.72	.54	.55	1.57	3.27	1.99	.81	1.34
Textiles, Fur and Leather	.49	.45	.54	.99	5.13	3.03	1.77	1.26
Rubber, Plastic and Related	.95	.65	.71	1.02	1.59	1.40	.92	1.18
Mechanics, Repairers and Related	.95	.68	1.03	1.28	.95	1.10	.76	1.01
Other	.88	.53	.92	1.02	2.06	1.44	.91	1.14
Construction Trades	.85	.57	.76	1.39	2.68	1.10	.29	.54
Excavating, Grading, Paving and Related	1.04	.54	.33	.60	2.14	.68	.13	.22
Electrical Power, Lighting-Wire and Comm. Equipment	1.05	.75	1.11	1.07	.72	.68	.46	.77
Other	.76	.54	.74	1.62	3.28	1.28	.28	.53
Transport Equipment Operations	1.18	.76	.59	.67	.57	.47	.24	.36
Air	1.10	.87	1.33	1.04	.16	.25	.46	.91
Rail	1.27	.86	.47	.23	.22	.40	.07	.24
Water	1.17	1.01	.88	.53	.31	.59	--	.71
Motor	1.17	.75	.19	.72	.63	.46	.26	.34
Other	1.09	.58	1.06	.61	.60	1.04	.31	.68
Materials Handling and Related	1.00	.61	.78	.78	1.58	1.04	.46	.81
Other Crafts and Equipment Operations	1.03	.75	1.43	.96	.50	.73	.70	.94
Printing and Related	1.01	.70	1.45	1.08	.57	.67	.76	1.18
Stationary Eng. and Utilities Equip. Op.	1.07	.64	1.46	.75	.40	.87	.42	.31
Electronic and Related Comm. Equip. Op.	1.10	1.51	1.09	.86	.27	.37	.72	1.17
Other	.85	.89	1.50	1.48	.79	1.61	2.18	2.29
Occupations not elsewhere classified	.95	.69	.77	.86	1.79	1.28	.87	.83
Labouring	.93	.43	.49	.72	2.10	1.35	.54	.81
Not stated	1.11	.84	.59	.68	.83	.76	.83	.75

TABLE 4A.2
Percentage Distribution of Ontario Labour Force by
Period of Immigration

Occupation	Total	Before 1946	1946-50	1951-60	1961-71
All Occupations	100%	14.72	11.21	41.24	32.83
Managerial, Administrative and Related	100%	23.35	13.76	41.32	21.55
Officials unique to government	100%	30.50	14.93	37.72	16.85
Other managers and administrators	100%	26.68	14.50	41.27	17.55
Related Occupations	100%	19.61	13.01	41.98	25.40
Occupations in Natural Sciences, Eng. & Math.	100%	7.91	11.04	39.00	42.04
Physical Sciences	100%	6.80	7.76	35.73	47.70
Life Sciences	100%	12.09	11.45	36.72	43.84
Architects and Engineers	100%	9.45	11.57	39.13	39.90
Other Occupations in Architecture & Engineering	100%	7.08	10.89	42.00	39.91
Occupations in Math., Statistics & Systems Analysis	100%	5.78	10.79	35.48	48.16
Occupations in Social Sciences and Related	100%	16.73	14.00	35.48	33.79
Social Sciences	100%	9.79	13.06	25.82	45.70
Social Work and Related	100%	14.58	11.49	41.34	32.42
Law and Jurisprudence	100%	31.34	16.90	33.80	18.66
Library, Museum and Archival Science	100%	14.71	17.65	25.21	42.44
Other	100%	17.20	16.13	44.09	24.73
Occupations in Religion	100%	33.33	11.76	26.72	27.94
Teaching and Related	100%	10.80	13.07	36.16	39.96
University and Related	100%	6.62	6.62	20.25	66.41
Elementary, Secondary and Related	100%	10.55	15.26	40.10	34.15
Other	100%	15.87	12.33	38.53	33.27
Occupations in Medicine and Health	100%	10.60	10.40	33.13	45.86
Health, Diagnosing and Treating	100%	14.27	11.81	29.63	44.39
Nursing, Therapy and Related Assisting Occupations	100%	10.71	10.27	33.13	45.84
Other	100%	7.27	9.77	35.86	47.19
Artistic, Literary, Recreational and Related	100%	14.70	11.02	40.70	33.68
Fine and Commercial Art, Photography and Related	100%	13.62	10.24	42.64	33.30
Performing and Audio-Visual	100%	15.31	9.69	36.73	38.26
Writing	100%	14.09	14.09	35.71	36.68
Sports and Recreation	100%	20.39	9.71	51.94	18.93
Clerical and Related	100%	15.40	11.23	40.88	32.49
Stenography and Typing	100%	12.33	10.51	39.74	37.42
Bookkeeping, Account Recording and Related	100%	13.75	11.63	43.35	31.26
Office Machine, Electronic Data, and Processing					
Equipment Operations	100%	7.01	8.45	38.83	45.64
Material Recording, Scheduling and Dist. Occ.	100%	18.08	11.65	42.28	28.02
Library, File and Correspondence Clerks	100%	13.30	10.10	35.40	41.30
Reception, Information, Mail and Message Dist.	100%	23.82	11.02	38.53	26.62
Other	100%	18.84	12.42	40.28	28.44
Sales Occupations	100%	21.76	12.35	43.01	22.87
Commodities	100%	22.12	12.14	43.15	22.61
Services	100%	20.59	13.62	41.65	24.09
Other	100%	18.04	11.82	46.09	25.05
Service Occupations	100%	17.47	10.10	41.00	31.42
Protective Services	100%	33.17	13.37	36.39	17.04
Food, Beverage Preparation and Related	100%	14.02	8.94	44.44	32.58
Lodging	100%	23.07	11.88	36.93	28.12
Personal Services	100%	14.44	8.14	40.82	36.57
Apparel and Furnishing	100%	14.54	9.16	38.07	38.15
Other	100%	16.48	10.74	40.81	31.96

TABLE 4A.2 -- Cont'd.

Occupation	Total	Before 1946	1946-50	1951-60	1961-71
Farming, Horticultural and Animal Husbandry Occ.	100%	21.92	17.32	43.57	17.20
Farmers	100%	30.68	24.21	40.10	4.99
Farm Management	100%	25.88	19.89	45.50	8.45
Other	100%	16.44	13.04	45.32	25.14
Fishing, Hunting, Trapping and Related	100%	23.68	10.53	28.95	36.84
Forestry and Logging	100%	14.76	14.16	49.40	21.38
Mining and Quarrying	100%	15.02	20.42	46.64	18.05
Processing Occupations	100%	12.57	12.81	42.09	32.54
Mineral Ore Treating	100%	12.33	17.12	47.26	23.29
Metal Processing and Related	100%	13.74	16.88	41.64	27.74
Clay, Glass, Stone Processing, Forming and Related	100%	9.87	10.69	61.68	33.88
Chemicals, Petroleum, Rubber, Plastic and Related	100%	12.56	11.84	42.89	32.40
Food, Beverage and Related	100%	10.30	10.57	42.63	36.53
Wood Processing	100%	17.43	19.27	38.53	22.94
Pulp and Papermaking	100%	23.10	18.35	47.47	11.39
Textile Processing	100%	14.33	11.25	35.17	39.14
Other	100%	18.15	13.70	43.15	25.00
Machining and Related	100%	9.80	9.77	41.33	39.09
Metal Machining	100%	10.73	9.17	41.24	38.92
Metal Shaping and Forming	100%	8.70	9.96	41.59	39.62
Wood Machining	100%	9.59	8.14	37.50	44.77
Clay, Glass, Stone and Related	100%	7.23	10.64	44.26	38.30
Other	100%	12.09	13.09	40.58	34.39
Product Fabricating, Assembling, and Repairing	100%	11.02	10.15	41.15	37.67
Metal Products	100%	10.93	12.94	45.05	31.04
Electrical, Electronic and Related	100%	11.01	10.15	41.79	37.12
Wood Products	100%	7.84	8.21	38.68	45.02
Textiles, Fur and Leather	100%	10.13	8.68	37.01	44.16
Rubber, Plastic and Related	100%	10.76	9.59	40.58	39.30
Mechanics and Repairs	100%	12.85	10.88	43.91	32.40
Other	100%	10.48	9.72	40.96	38.71
Construction Trades	100%	8.43	9.91	47.46	34.20
Excavating, Grading and Paving	100%	10.90	11.71	50.41	26.83
Electrical Power, Lighting and Wire Comm. Equip.	100%	12.40	11.46	41.56	34.69
Other	100%	7.60	9.49	48.03	34.88
Transport Equipment Operations	100%	19.65	12.05	47.03	21.26
Air	100%	11.82	19.09	47.27	40.00
Rail	100%	43.87	15.57	30.66	11.32
Water	100%	28.46	12.20	40.65	17.89
Motor	100%	17.97	11.54	48.52	22.03
Other	100%	22.41	14.66	40.52	20.69
Materials Handling and Related	100%	11.78	11.34	43.96	32.92
Other Crafts and Equipment Operations	100%	21.29	11.26	41.07	26.39
Printing and Related	100%	16.60	9.99	41.70	31.78
Stationary Eng. and Utilities Equipment Operations	100%	32.46	13.86	39.95	13.98
Electronic and Related Comm. Equipment Operations	100%	19.66	12.82	37.61	29.91
Other	100%	10.45	8.46	43.28	38.81
Occupations not elsewhere classified	100%	11.11	10.97	41.36	36.50
Labourers	100%	7.91	9.75	42.37	39.97
Not stated	100%	18.78	9.39	36.02	35.80

TABLE 4A.3
Percentage Distribution of Male Population by Birthplace, Ontario, 1971

Occupation	Birthplace							Others
	Canada	U.S.	U.K.	Northern- Western Europe	Southern Europe	Eastern Europe	Asia	
Managerial, Administrative	6.49	12.41	9.09	4.96	1.10	4.04	5.23	5.80
Natural Sciences	3.95	6.10	8.81	5.91	1.50	5.86	13.90	8.27
Social Sciences	1.01	2.77	1.01	.55	.15	.57	1.11	1.33
Religion	.30	1.42	.41	.26	.09	.23	.24	.16
Teaching	2.48	7.51	2.93	2.07	.55	1.56	4.54	5.16
Medicine & Health	1.32	1.81	1.67	1.36	.49	1.91	5.48	5.35
Artistic, Literary	1.08	2.85	1.87	1.26	.45	1.02	.89	1.58
Clerical	8.84	8.08	9.84	5.74	3.53	4.83	9.01	11.81
Sales	10.96	12.42	10.38	8.47	4.80	8.40	8.36	7.46
Service	8.10	7.10	9.26	7.17	14.51	9.81	17.60	8.51
Farming	5.80	3.70	1.80	8.41	1.91	4.59	1.11	1.49
Fishing, Hunting	.06	.07	.02	.01	.03	.02	.00	.00
Forestry, Logging	.62	.39	.08	.54	.24	.33	.11	.06
Mining	1.04	.44	.31	.90	.56	1.07	.24	.42
Processing	4.36	2.94	3.43	4.91	7.41	7.08	2.29	3.32
Machining	4.39	3.22	6.77	8.85	9.34	9.66	5.69	7.01
Fabricating, Assembling	8.95	6.56	10.37	11.85	13.03	14.51	9.35	11.93
Construction	8.18	5.81	7.57	13.04	23.81	9.93	2.82	6.05
Transport	6.40	4.34	3.36	3.51	2.93	2.40	1.33	2.30
Materials Handling	3.08	2.02	2.10	2.13	3.17	2.68	1.05	2.19
Crafts & Equipment	1.94	1.41	2.69	1.65	.78	1.33	1.29	1.83
Other Occupations	2.91	2.02	2.45	2.52	4.59	3.56	2.55	2.67
Not Stated	7.72	4.60	3.76	3.93	5.03	4.63	5.59	5.35
Total, percent	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Same as Table 3.

TABLE 4A.4
Percentage Distribution of Female Population, by Birthplace, Ontario, 1971

Occupation	Birthplace							
	Canada	U.S.	U.K.	Northern- Western Europe	Southern Europe	Eastern Europe	Asia	Others
Managerial, Administrative	2.25	3.13	2.72	1.83	.43	1.50	1.46	1.40
Natural Sciences	.52	1.32	.98	1.03	.22	1.49	1.98	.94
Social Sciences	1.12	2.90	1.08	.84	.13	.85	1.52	1.34
Religion	.07	.31	.06	.05	.03	.06	.00	.06
Teaching	7.20	10.22	5.03	4.90	1.28	3.05	4.76	5.19
Medicine & Health	7.88	7.66	7.41	8.01	1.80	6.54	22.93	17.24
Artistic, Literary	.80	2.08	1.04	1.05	.28	.91	.65	.65
Clerical	36.46	33.06	42.34	29.78	13.19	19.78	29.64	37.66
Sales	8.83	9.32	10.40	9.10	4.20	9.46	4.50	4.08
Service	12.49	11.43	13.02	16.92	23.50	21.24	11.79	13.89
Farming	2.76	2.37	.72	5.80	2.14	5.46	.65	.77
Fishing, Hunting	.01	.00	.01	.01	.03	.01	.00	.02
Forestry, Logging	.06	.08	.01	.03	.01	.01	.00	.02
Mining	.01	.00	.00	.00	.01	.02	.00	.02
Processing	1.58	.87	1.26	2.14	6.75	4.15	1.30	1.00
Machining	.70	.54	.69	1.08	2.27	1.18	.49	.59
Fabricating, Assembling	3.84	2.56	4.09	6.04	24.22	10.94	7.50	5.48
Construction	.15	.20	.11	.17	.61	.24	.10	.06
Transport	.40	.31	.14	.28	.10	.13	.06	.06
Materials Handling	1.47	.82	1.69	1.65	5.70	2.47	1.39	1.84
Crafts & Handling	.49	.45	.80	.69	.49	.51	.39	.63
Other Occupations	.81	.90	.61	.86	2.91	1.52	.94	.92
Not Stated	10.08	9.52	5.77	7.77	9.47	8.42	7.87	6.25
Total, percent	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Same as Table 3.

TABLE 4A.5

Rank Order of Occupations, by Median Total Employment Income of Males, for
All Labour Force and Foreign Born, by Period of Immigration, Ontario, 1971

All Labour Force	Foreign Born						
	Total	Before 1946	1946-1955	1956-1960	1961-1964	1965-1968	1969-1971
Medicine	Managerial	Medicine	Medicine	Medicine	Medicine	Managerial	Managerial
Managerial	Medicine	Managerial	Managerial	Managerial	Managerial	Medicine	Teaching
Social Science	Social Science	Social Science	Social Science	Teaching	Teaching	Teaching	Medicine
Teaching	Teaching	Teaching	Natural Science	Natural Science	Social Science	Natural Science	Social Science
Natural Science	Natural Science	Natural Science	Teaching	Social Science	Natural Science	Social Science	Natural Science
Crafts	Crafts	Sales	Crafts	Artistic	Mining	Crafts	Sales
Mining	Sales	Crafts	Sales	Crafts	Crafts	Machining	Machining
Sales	Mining	Artistic	Mining	Mining	Artistic	Artistic	Crafts
Machining	Artistic	Mining	Artistic	Sales	Machining	Sales	Construction
Artistic	Machining	Machining	Construction	Machining	Sales	Mining	Fabricating
Fabricating	Construction	Processing	Machining	Construction	Construction	Construction	Artistic
Construction	Fabricating	Construction	Fabricating	Fabricating	Fabricating	Fabricating	Mining
Processing	Processing	Fabricating	Processing	Processing	Processing	Processing	Transport
Transport	Transport	Transport	Transport	Transport	Transport	Transport	Processing
Clerical	Clerical	Materials	Clerical	Clerical	Clerical	Clerical	Clerical
Service	Materials	Clerical	Materials	Forestry	Forestry	Forestry	Materials
Materials	Forestry	Service	Forestry	Materials	Materials	Materials	Forestry
Religion	Service	Religion	Service	Service	Religion	Religion	Religion
Forestry	Religion	Forestry	Fishing	Religion	Service	Fishing	Fishing
Fishing	Farming	Farming	Farming	Farming	Farming	Service	Service
Farming	Fishing	Fishing	Religion	Fishing		Farming	Farming

Same as Table 12.

TABLE 4A.7

Breakdown of Head's Total Earnings by Immigration
Status and Detailed Education, Ontario, 1973 (\$)

	Mean	Standard Deviation	Number
Canadian Born:			
Under Grade 5	1970	3614	164
Grade 5-8	4825	5443	1318
Secondary Incomplete	7208	5746	1822
Secondary Vocational	8464	6249	252
Secondary Academic	9087	6482	579
Non-University Some	7104	5700	151
Non-University Complete	7894	6671	306
University Some	9401	6788	188
University Diploma	12014	8836	54
University Degree	14227	9147	414
Arrived Before 1964:			
Under Grade 5	2517	4173	152
Grade 5-8	5170	5589	590
Secondary Incomplete	7048	5701	377
Secondary Vocational	9877	4798	70
Secondary Academic	9204	6163	198
Non-University Some	8188	6094	55
Non-University Complete	9876	5749	97
University Some	10776	6126	58
University Diploma	10847	9737	16
University Degree	14095	9357	99
Arrived 1975 - 1974:			
Under Grade 5	4485	4271	50
Grade 5-8	6887	4292	165
Secondary Incomplete	6416	4249	127
Secondary Vocational	7481	5889	32
Secondary Academic	7229	5786	79
Non-University Some	4582	5606	25
Non-University Complete	10140	4419	54
University Some	5193	4503	24
University Diploma	8040	6021	10
University Degree	11811	8430	98

Source: See Table 16.

Chapter V

Income Determination and Earnings Elasticities

Introduction

Now that earnings and incomes of the Canadian born and foreign born have been examined by age, sex, and occupation, it is useful to measure the relative effects of certain variables on earnings and the significance of these variables as compared with other members of the same set. This chapter attempts to decompose the relative effects of occupation, education, age, residence, labour force status, class of workers, marital status, and location on mean earnings from Chapter IV for the total Ontario male labour force, and for the Canadian born and foreign born separately.

Income Determination

The model of income determination used provides information on the importance of nine factors that affect income. The explained variable is mean total earnings of male heads of households. The nine factors are incorporated in a multiple regression as follows:

- 1) Occupational Classification: managerial, natural sciences -- social sciences -- teaching -- medicine, clerical, sales, services, farming -- fishing -- logging, mining -- processing -- machining, fabricating, construction, transport -- crafts, not in labour force; with managerial acting as the base;
- 2) Education: 0 to 8 years, 9 to 13 years, 14 or more years; with 0 to 8 years acting as the base;
- 3) Age: 14 to 25 years, 26 to 45 years, 46 to 64 years, 65 to 75 years, 76 and over; with 14 to 25 years acting as the base;
- 4) Residence: non-farm, farm; with non-farm acting as the base;
- 5) Labour Force Status: employed, unemployed; with employed acting as the base;
- 6) Class of Worker: paid, self-employed, unpaid family worker; with paid acting as the base;

- 7) Full Time and Part Time: full-time, part-time, did not work; with full-time acting as the base;
- 8) Marital Status: single, married, other; with single acting as the base;
- 9) Area: large urban centre (population of 100,000 or more), minor urban centre (population of 30,000 - 99,999), other cities (population of 15,000 - 29,999), small urban areas (population of 1,000 - 14,999), rural areas; with large urban centres acting as the base.

This list illustrates the range of controls which are possible while using the Micro Data File of Statistics Canada. For each variable, the different characteristics can be compared with the base group and all other groups while holding the other factors constant; for example, the effect on earnings of living on a farm as compared to not living on a farm can be compared while holding the other eight explanatory variables constant. The reaction of the foreign born and the Canadian born are compared by running separate multiple regressions for each group. Note that each of the explanatory variables are binary while the dependent variable is continuous.

It is expected that all groups except perhaps natural sciences -- medicine have lower mean earnings than the managerial group with farming -- logging having the greatest difference from the base. Mean earnings are hypothesized to rise with education and with age up to 46 to 64 years and then fall. Farm residence should have a negative impact on mean earnings. The unemployed should have lower mean earnings than the base, the employed, and it will be interesting to see if the foreign born, unemployed, are further from the base than the Canadian born. It is hypothesized that full-time workers will have higher earnings than the part-time worker, that earnings rise with centre size, and that married males will have higher earnings than the other groups since this status allows specialization in provision of earnings which comes with

family responsibility. The effect of worker class is difficult to hypothesize while the self-employed include doctors and lawyers, farmers are also present. Therefore no a priori statements will be made.

Empirical Results

First, the model is tested on the total Ontario male population -- Canadian and foreign born -- using data from Statistics Canada's Micro Data File 1973. Table 21 presents these results under the column All Males. Recall that the Y-intercept represents the estimated mean earnings for a group with the following characteristics: managerial occupation, 0 to 8 years education, 14 to 25 years of age, non-farm, employed, paid worker, full-time status, single, living in a large urban centre. Twenty-four of the twenty-eight independent variables are significant at the 5% level and the hypotheses which were stated above are generally found to be supported. All of the occupational groups have negative coefficients indicating that the managerial group has the highest mean earnings. As predicted, the difference is the smallest between the managerial and natural sciences groups and the greatest between the managerial and the farming occupations with the exception of those not in the labour force. The other occupations are spread between these extremes and all coefficients are significant at the 5% level. Mean earnings rise with education as hypothesized; all else the same, the earnings gap between elementary and secondary education is \$968 and between secondary and further education is \$1647 (2615-968). Having fourteen or more years of schooling is relatively more important than having secondary education as compared with not attaining these two levels.

The age variable peaks with the group 26 to 45 years which is unexpected and in fact there is little difference between the coeffi-

TABLE 21

Aggregate Earnings Function and Separate Earnings Functions of
Canadian and Foreign Born Males, Ontario, 1973
(t-ratios in parentheses)

Independent Variables	All Males	Canadian Born	Foreign Born
Occupation:			
Natural Sciences	-2898 (9.52)	-2815 (7.57)	-2988 (5.52)
Clerical	-5397 (14.98)	-4974 (11.58)	-6314 (9.42)
Sales	-3418 (10.40)	-2966 (7.56)	-4351 (7.14)
Services	-5823 (16.88)	-4831 (10.97)	-7015 (12.10)
Farming	-6947 (14.66)	-6971 (11.97)	-6834 (8.23)
Mining	-4005 (12.69)	-3526 (9.04)	-4602 (8.35)
Fabricating	-4267 (13.45)	-3916 (10.07)	-4714 (8.42)
Construction	-3417 (10.44)	-3248 (7.90)	-3562 (6.36)
Transport	-4521 (14.04)	-4232 (11.10)	-5069 (8.21)
Not in Lab. For.	-7462 (17.79)	-7301 (14.54)	-7708 (9.91)
Education:			
9-13 Years	968 (6.40)	912 (4.55)	986 (3.90)
14+ Years	2615 (12.33)	2945 (10.51)	2000 (6.29)
Age:			
26 - 45 Years	3443 (15.72)	3816 (14.61)	2577 (6.26)
46 - 64 Years	3370 (14.56)	3741 (13.47)	2537 (5.85)

Independent Variables	All Males	Canadian Born	Foreign Born
65 - 75 Years	1585 (4.69)	1905 (4.55)	880 (1.53)
76+ Years	2005 (4.47)	2369 (4.31)	1150 (1.51)
Residence:			
Farm	368 (1.17)	454 (1.21)	269 (.448)
Labour for. Status:			
Unemployed	-2519 (6.63)	-3149 (6.57)	-1456 (2.32)
Class of Worker:			
Self-Employed	-106 (.425)	87 (2.67)	-265 (.684)
Unpaid Fam. Worker	-2402 (1.02)	-1213 (.476)	-2549 (.795)
Full and Part Time:			
Part Time	-3572 (9.00)	-3894 (8.23)	-2809 (3.77)
Did Not Work	-5203 (13.86)	-5135 (11.11)	-5538 (8.38)
Marital Status:			
Married	2190 (9.33)	2104 (6.98)	2527 (6.58)
Other	1771 (4.90)	1537 (3.40)	2178 (3.49)
Area:			
Minor Ur. Centre	51 (.219)	-54 (.185)	64 (.171)
Other Cities	-756 (2.31)	-1015 (2.72)	-662 (.858)
Small Ur. Areas	-681 (3.39)	-933 (3.87)	-453 (1.10)
Rural Areas	-711 (3.90)	-927 (4.17)	-626 (1.75)
Y-Intercept	8606	8305	9638
R ²	.446	.460	.495

cients for 26 to 45 years and 46 to 64 years. Both lead to mean earnings about \$3400 above the same person aged 14 to 25 years. All age coefficients are significant at the 5% level. The sign is negative for the unemployed as expected. As the \$2519 difference for the unemployed just offsets the \$2615 difference for fourteen or more years of education, an employed person with 0 to 8 years education has about the same mean earnings as an unemployed person with fourteen or more years of education, all else the same. The full-time-part-time variable upholds the hypothesis that part-time works have lower mean earnings than full-time workers, with a spread of \$3572 on average. The earlier expectation on marital status, namely that married males will have higher mean earnings than the other groups, is also supported.

On the unsupported side, there is no statistical difference between farm and non-farm groups and among paid, self-employed, and unpaid farm workers. Those in large and minor urban centres, all else the same, have the same mean earnings, and mean earnings fall relative to the large urban centres as we move to small urban areas, rural areas, and other cities which have significant coefficients at the 5% level.

In order to isolate the importance of differences in the earnings functions according to birthplace, the functions are estimated separately. Table 21, columns headed Canadian Born and Foreign Born, presents the functions of males according to place of birth. There are several differences in these earnings functions, yet for both of them a large majority of the variables are significant at the 5% level. Most of the occupational variables are higher for the foreign born; when it is noted that the Y-intercept is over \$1300 larger for the foreign born, these facts lead to a small gap between the Canadian born and the foreign born for all occupation groups other than the managerial group. In other

words, the "elite" (in terms of income) managerial group is further out ahead in mean earnings for the foreign born than for the Canadian born. This reflects the more selective occupational structure of the foreign born which was noted in Chapter IV. All else the same, the service occupation has the lowest mean earnings for the foreign born while the Canadian born reflects closely the pattern discussed above for All Males. For both birthplace groups, all the signs are negative indicating that the managerial group has the highest mean earnings.

The educational variable presents an interesting contrast. The pay-off in terms of earnings is slightly higher for the foreign born at the secondary level, namely \$968 versus \$912. But for fourteen or more years of education, the extra earnings for the Canadian born is almost 50% higher than for the foreign born. The amount of discrimination with all else the same grows with level of education.

The age coefficients show a similar pattern to the one discussed earlier for All Males, but the size of the coefficients is quite different. For those in the 26 to 45 and 46 to 64 year groups, the Canadian born have mean earnings which are 48% and 47% respectively higher than the foreign born in similar age groups. This may represent the greater proportional concentration of the foreign born in these two age groups. Moving to labour force status, while the unemployment variable is significant at the 5% level in both functions, the state of unemployment is apparently much more detrimental to the mean earnings of the Canadian born than of the foreign born. Finally, the differential between full-time and part-time workers is not as great for the foreign born.

As with All Males, residence and class of worker has no effect on mean earnings. The area variable presents a contrast between the birthplaces. For the foreign born, area or city size does not matter as

all coefficients are insignificant at the 5% level. Except for minor urban centres, large urban centres display higher mean earnings than other area groups for the Canadian born; they should definitely prefer large urban centres, all else the same, while no such preference would exist for the foreign born. The well documented preference of the foreign born for large urban centres can not be explained in terms of actual earnings differences with other areas, although these may be perceived differences to the foreign born.

Finally, a Chow Test is conducted on the estimates of Table 21; it shows that the coefficients for Canadian born and foreign born are significantly different.

EARNINGS: EDUCATION AND EXPERIENCE

The last section of this chapter indicated that there is a significant difference between mean earnings gain for levels of education for the Canadian born and the foreign born. The issue is studied further here with the idea being to test the hypothesis that the percentage change in mean earnings for a one percent change in education and work experience is greater for the Canadian born than for the foreign born. If this hypothesis is correct, then government authorities might direct their attention to improving the foreign born's return to improved education and work experience, as this affects economic absorption and efficient resource allocation.

Charles Link used the model employed here to study the earnings function of whites and non-whites in the United States (Link, 236-37). Mean earnings as defined from the Micro Data File is a function of educational attainment and work experience:

$$(13) Y = AE^x W^y,$$

where Y is mean earnings of Ontario Males, 18 years and older, in 1973, E is the number of years of education, W is work experience, A is the shift coefficient which represents factors other than education and work experience, and x and y are the elasticities of earnings with respect to education and work experience respectively.

Since the elasticities may vary with different levels of education and work experience, E and W are disaggregated into three variables each, namely 0-8, 9-13, and more than 13 years of education and 0-5, 6-15, and 16+ years of work experience. The earnings function becomes:

$$(14) Y = AE_1^{x_1} E_2^{x_2} E_3^{x_3} W_1^{y_1} W_2^{y_2} W_3^{y_3}$$

Certain assumptions about years of education had to be made since the Micro Data File provides information in discontinuous groupings. It is assumed on average that under grade 5 represents 3 years of education, grade 5-8 represents 7 years of education, high school not completed represents 11 years of education, high school vocational completed represents 12 years of education, high school academic completed represents 13 years of education, non-university some represents 12 years of education, non-university completed represents 13 years of education, university some represents 14 years of education, university diploma completed represents 15 years of education, and university degree completed represents 17 years of education. Following Link's methodology, W is the difference between the individual's present age and age on entry to the labour force. It is assumed that those persons with no university experience entered the labour force at age eighteen, those with some university entered at age twenty, and those with a university diploma or degree entered at age twenty-two. All data are taken from the Micro Data File, 1973.

The regression is estimated in log-form:

$$(15) \ln Y = A + x_1 \ln E_1 + x_2 \ln E_2 + x_3 \ln E_3 + y_1 \ln W_1 \\ + y_2 \ln W_2 + y_3 \ln W_3$$

From this formulation, the elasticities of income with respect to 0-8, 9-13, and 13+ years of education are $x_1 + x_2 + x_3$, $x_2 + x_3$, and x_3 , respectively, and with respect to 0-5, 6-15, and 16+ years of work experience are $y_1 + y_2 + y_3$, $y_2 + y_3$, and y_3 , respectively (Link, 237). In order to see this, think of the coding involved for the education variables. For a person with grade 5 to 8 education, $E_1 = 7$, $E_2 = 7$, and $E_3 = 7$; the individual with high school completed is coded as $E_1 = 7$, $E_2 = 13$, $E_3 = 13$; and the university graduate is coded as $E_1 = 7$, $E_2 = 13$, $E_3 = 17$. Coding the data in this fashion allows us to estimate the income elasticity associated with any particular education range as the sum of the coefficients for those who stopped at that level and the coefficient(s) associated with individuals who went on to attain higher levels of education. Inclusion of the latter coefficients allows for the effect of the first "n" years on the incomes of individuals who surpassed this level of education. The elasticities themselves represent the percentage change in mean earnings arising from either a one percent change in education or a one percent change in work experience.

Table 22 presents the regression results for seven groups: Canadian born, foreign born, all males, the foreign born who arrived before 1964, the foreign born who arrived between 1964 and 1972, the foreign born who arrived between 1964 and 1974, and the foreign born who arrived in 1973 or 1974. A glance at the table indicates that there are significant differences among the seven groups. Looking first at the All Males groups, earnings elasticity rises with years of education, being inelastic at the elementary and secondary levels and elastic at the

TABLE 22

Income Elasticities of Education and Experience for
Males, Ontario, 18 Years and Older, 1973

	<u>Years of Education</u>			<u>Years of Experience</u>		
	0-8	9-13	13+	0-5	6-15	16+
1. <u>Canadian-Born</u>	.40	.63	1.67	.51	.73	-.48
2. <u>Foreign-Born All</u>	.12	.28	1.27	-.05	.89	-.43
3. <u>All Males</u>	.20	.49	1.54	.40	.76	-.47
4. <u>Arrived Before 1964</u>	.20	.34	1.52	.19	.86	-.57
5. <u>Arrived 1964-1972</u>	-.08	.11	.98	-.001	.65	-.40
6. <u>Arrived 1964-1974</u>	-.13	.04	1.41	-.10	.77	-.37
7. <u>Arrived 1973-1974</u>	Nothing Significant					

Chow Test Between 1 + 2: F = 9.16 (significant)

Chow Test Between 4 + 6: F = 9.09 (significant)

post-13 years level, and peaks with 6-15 years of work experience, becoming negative for 16+ years. This pattern prevails for both the Canadian born and foreign born (all) groups. The absolute values are, however, quite different. For education, foreign born (all) have consistently lower earnings elasticities than the Canadian born and this difference or gap remains at about .4 throughout. For one percentage increase in years of education, the foreign born receive a smaller percentage increase in mean earnings than the Canadian born. The result is more beneficial for years of experience; the foreign born (all) are only at an elasticity disadvantage in the lowest experience level. For 6-15 and 16+ years of experience the rewards for more experience for the foreign born are about the same as or better than the Canadian born. Therefore, if government desires to improve the relative elasticities of the foreign born, it would concentrate on education and the lowest work experience group.

For the immigrant population, it can be hypothesized that earnings elasticities will increase with time in Canada. This allows adjustment to labour market conditions and the migrant can acquire the educational and work skills to earn larger percentage increase for a one percent change in education or experience. The results for the groups who arrived before 1964 and who arrived between 1964 and 1972 verify this hypothesis: the former group have higher earnings elasticities than the latter group.

Finally, two Chow Tests are carried out; they appear at the bottom of Table 22. They show that the coefficients are significantly different between the regressions for the Canadian born and the foreign born (all), and between the regressions for the foreign born who arrived before 1964 and the foreign born who arrived 1964 to 1974.

The lower educational elasticities may result from discrimination, failure to recognize foreign educational levels as equal to Canadian and thus pay less, or a different occupational mix of the foreign born which puts them in occupations where the earnings for all levels of education is lower than in occupations of the Canadian born.

Chapter VI

A Simulated Ontario Economy

Introduction

This chapter uses a computerized econometric model to say something about what would happen to Ontario's economy if the level of immigration was changed. Two models are in fact used, namely the University of Toronto's quarterly model of the Canadian economy and Data Resources of Canada's Ontario quarterly forecasting model. It may be instructive before presenting the simulations to review three studies of the Canadian economy; each uses a different economic model of that economy, changes the level of net inward migration, and observes what happens to the variables which each model determines.

Canadian Models

The three models are by the present author (Marr, 1973), by Gordon Davies (Davies, Special Study), and by Dwight Grant, A.O. Nakamura, M. Nakamura (Grant, 1975). Each is described below in turn.

Marr addresses the following question: What would have been the impact on certain economic variables in the Canadian economy if net inward migration for the time period 1950 to 1967 had been one million eight hundred thousand more than what it actually was? Marr brings together equations into a small econometric model of three sectors of the Canadian economy: a real sector (personal expenditure on consumer goods and services, government expenditure, gross capital formation, foreign trade, gross national product), a labour sector (average hourly wage rate, total hours worked per year, average hours worked per worker per year, male labour force participation rate, female labour force participation rate), and a net inward migration sector. The incorpora-

tion of net inward migration follows the approach suggested by J.H. Duloy, although he did not use his results in a simulation model (Duloy, 223-33). It is assumed that migrants have initially different spending and labour market habits than the non-migrant population, but that these differences disappear after an assimilation period. If a certain assimilation path is assumed, the number of years required to eliminate this difference can be estimated (Marr, 1973). The model is allowed to generate self-contained simulation values for the determined variables between 1950 and 1967; here net inward migration takes its actual historical values. To answer the question posed above, net inward migration for each year is assigned a value one hundred thousand greater than its actual historical value; the simulation (Sim 2) is repeated and the results are compared with the first simulation (Sim 1).

The pertinent results appear in Table 23. Additional net inward migration raises per person consumer spending on durables and on non-durables, but lowers it on services. This latter effect is caused by migrants having lower average propensities to consume services than the non-migrant population. The net effect of these three variables is a slight increase in total consumption per person in Sim 2. One of the real stimulants in this model comes from the effect of increased net inward migration on investment in plant and equipment: average value rises from \$298.2 to \$318.6. The other two investment variables in Table 23 also rise but only slightly. The two indicators of economic well-being, namely real gross national product per person and real personal disposable income per person, fall but again the effect is small given the magnitude of the change in net inward migration. Both the labour force and employment are increased in Sim 2, the former by a greater percentage than the latter, so unemployment rises. This causes

TABLE 23

The Effects of Increasing Net Inward
Migration by 100,000 Per Year, 1950-1967

Variables ¹	Sim 1	Sim 2
Consumer Non-Durable Goods Per Person	615.8	624.6
Consumer Durable Goods Per Person	148.8	154.4
Consumer Services Per Person	442.0	429.1
Investment in Residential Construction Per Person	81.9	84.4
Investment in Non-Residential Construction and Machinery and Equipment Per Person	289.2	318.6
Government Gross Investment Per Person	79.8	81.7
Gross National Product Per Person	1879.7	1867.0
Personal Disposable Income Per Person	1294.8	1867.0
Average Hourly Wage Rate	1.87	1.82
Labour Force	6291.3	6683.4
Number Employed	5896.8	6105.5
Number Unemployed	394.4	577.9

¹Average (constant dollar) values except labour force, number employed and number unemployed which are in thousands.

Source: Marr, 1973, 114.

a rise in the average unemployment rate by approximately 2%. The general conclusion seems to be that if net inward migration had been double what it was between 1950 and 1967, unemployment rates and per capita income would have been respectively slightly higher and lower.

Davies employs CANDIDE, the model used by the federal government and simulates assuming four different levels of annual gross immigration ranging from 80,000 to 200,000. Table 24 presents some of the results. The results are almost identical to those found by Marr: investment, labour supply and unemployment rate rise, while per capita GNP falls. An additional effect from the Davies' study is a fall in the consumer price index. Whether the magnitude of the change brought on by increased migration in the Marr and Davies works is large or small is left to the readers choice.

Grant, Nakamura, and Nakamura simulate with the Bank of Canada's RDX2 model for the period 1965, quarter 4 to 1970, quarter 4. They varied the inflow of people by percentage amounts and altered certain other series which related directly to population. Some of their results appear in Table 25. Like the Marr and Davies studies, gross national expenditure rose with more immigrants, but per capita GNE and the consumer price index increased while the unemployment rate fell. Note should be made of the growth model of George Borts and Jerome Stein; their model is consistent with wages in a region of high immigration rising relative to wages in a region of lower in-migration (Borts and Stein, 65-86). Like the Marr study, consumer expenditure increases with higher immigration. These different results stem from the structure of the models used in each case and from the assumptions made about variables that are controlled along with immigration. How sensitive results are to these factors must be left to another investi-

TABLE 24

Effects of Different Levels of Gross Immigration,
1972-80

Variables ¹	Levels of Gross Immigration			
	80,000	120,000	160,000	200,000
Residential Investment	3.48	3.69	3.91	4.12
Investment in Machinery and Equipment	6.41	6.45	6.50	6.55
Imports	18.08	18.12	18.18	18.24
Government Fixed Capital Formation	3.46	3.47	3.49	3.50
Per Capita GNP	3746	3753	3744	3736
Unemployment Rate	4.45	4.71	4.96	5.20
Labour Supply	9.58	9.67	9.75	9.84
Consumer Price Index Growth	2.27	2.23	2.20	2.19

¹ Average (constant) values in billions of dollars except GNP per capita which is in dollars and consumer price index growth is in percent terms.

Source: Davies, Table 2.

TABLE 25

Simulation Results:
1965-69 and 1970-74

Variables	% Increase in Immigration		
	+60	+40	Control
Quarterly GNE (\$ millions)	14889 ^a 2212 ^b	14483 22190	14457 22165
Quarterly Per Capita GNE (\$)	727 1035	726 1034	725 1034
Unemployment Rate (%)	5.18 4.56	5.20 4.58	5.19 4.57
Consumer Price Index	1.083 1.300	1.083 1.299	1.082 1.299
Consumer Expenditure on Durables (1961 \$ m.)	696 979	696 978	695 977
Consumer Expenditure on Non-Durables and Semi- Durables (1961 \$ m.)	4412 5340	4411 5337	4408 5333
Consumer Expenditure on Services (1961 \$ m.)	2968 3732	2968 3732	2967 3730
Municipal Investment in School Construction (1961 \$ m.)	73 104	72 102	70 99

^aFigures appearing in the top row for each variable are for 1965-69.

^bFigures appearing in the bottom row for each variable are for 1970-74.

Source: Grant, Tables VI and VII.

gation. As Grant, et. al. point out, the characteristics of immigrants as opposed to the Canadian-born are crucial.

With these three studies as background, the Ontario model can be introduced.

The Ontario Model

William Empey at Data Resources of Canada, Toronto, developed a quarterly forecasting model of the Ontario economy. The model forecasts a number of economic indicators for the province, including personal income, disposable income, labour force, employment, unemployment, retail sales, and net migration. The inclusion of the last mentioned indicator is useful for the purposes at hand since it can be changed, this can work through the model, and the new results can be compared with a control solution. The Ontario model links closely with an econometric model of the United States maintained by Otto Eckstein and with the University of Toronto's Canadian quarterly forecasting model. These national models feed variables which are predetermined into the Ontario model. Some of the Canada-wide variables from Toronto's model are:

- 1) population 14 years and over;
- 2) private non-residential construction expenditure, 1961 dollars;
- 3) government civilian employment;
- 4) personal income taxes;
- 5) contributions to Quebec and Canada Pension Plans;
- 6) real personal disposable income, 1961 dollars;
- 7) total employment;
- 8) average annual wage of employees in the private sector;
- 9) unemployment insurance benefits paid;
- 10) consumer price index, 1961 = 1.0;

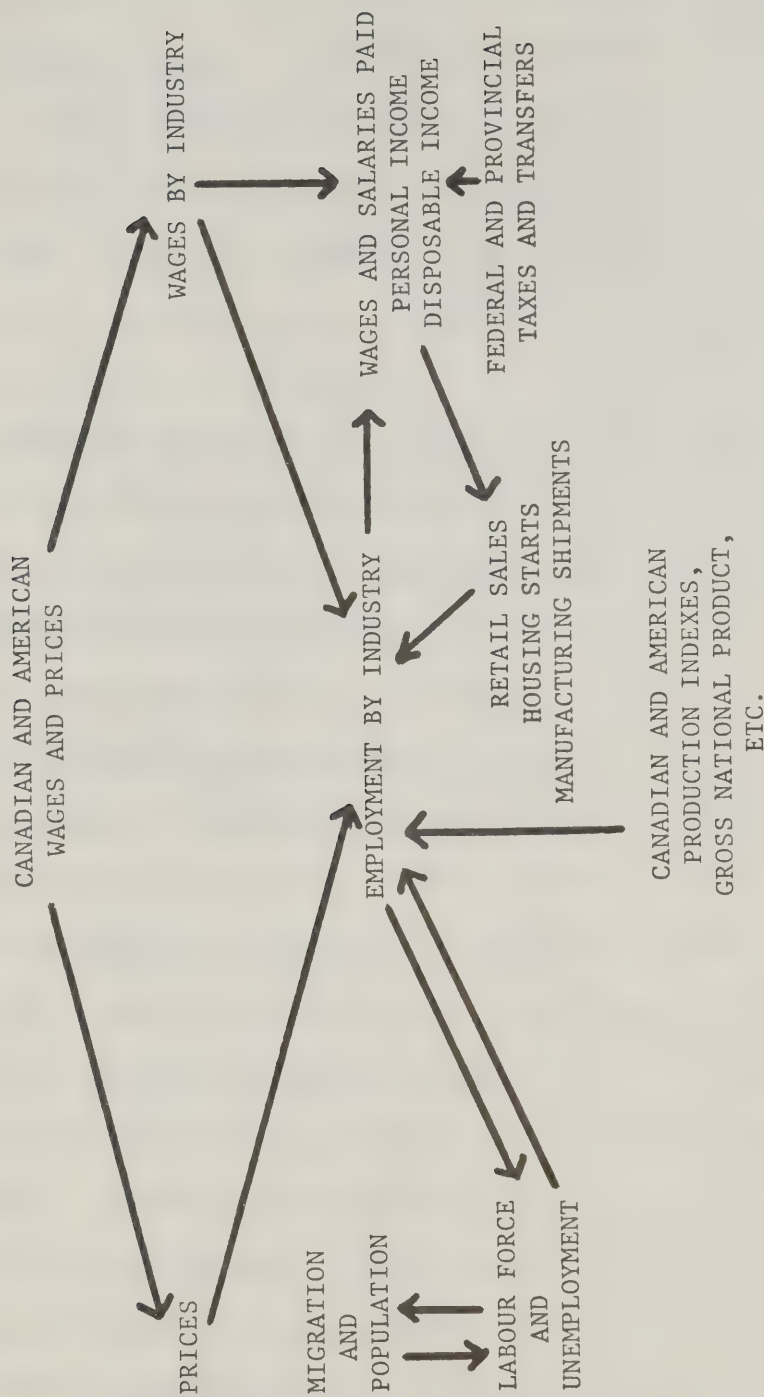
- 11) interest rate on 90-day finance company paper;
- 12) GNP originating in the private sector, 1961 dollars;
- 13) private housing starts.

Predetermined variables from the U.S. model include:

- 1) index of iron and steel production;
- 2) index of motor vehicles and parts production;
- 3) index of paper and products production;
- 4) wood products wholesale price index;
- 5) price deflator new automobiles;
- 6) U.S. housing starts.

The Ontario model consists of forty-five equations, each one determining some economic or socio-economic indicator after the predetermined variables which occur inside and outside Ontario's economy are established. Figure 1, a schematic representation of the Ontario model, indicates the sectors in the model: 1) the labour supply sector; 2) employment by industry; 3) wages by industry and other income; 4) demand and sales sector. The system centres on employment in eleven industries: agriculture, forestry, mining, manufacturing (excluding motor vehicles), transport equipment, construction, transportation and communications and utilities, trade, finance and real estate, commercial services, and government. The level of employment in general is explained by the level of wages in the industry and the level of output in Ontario as measured by the value of manufacturing shipments. As well, some employment equations have unique causes: agriculture -- personal income in Ontario; forestry -- U.S. housing starts, U.S. paper production; mining -- U.S. nonferrous metals and iron and steel production; transport equipment -- U.S. motor vehicles and parts production; construction -- investment in nonresidential construction in Canada, Ontario

Figure 1



Source: Data Resources Incorporated.

housing starts; trade -- value of retail sales, Ontario unemployment rate; finance and real estate -- real personal income in Ontario; government -- Canadian government civilian employment. Output, the value of manufacturing shipments, in turn depends on national demand for Ontario manufactures as reflected in the Canadian private sector gross national product and on local cyclical factors as introduced in the Ontario unemployment rate. The demand and sales sector also contains the value of retail sales and housing starts (no. of units). The former is a function of personal disposable income in Ontario and the rate on 90-day commercial paper viewed as a cost of consumer durables purchased on credit; the latter is simply a function of housing starts in Canada.

Average weekly earnings in each industry, except manufacturing, in general are explained by average weekly earnings in manufacturing and by productivity in manufacturing. Manufacturing is regarded as the key to wage trends set throughout the Ontario economy with many other industries following along. The productivity variable reflects current market conditions. In the short run, as output rises firms respond by keeping workers on overtime which inflates average weekly earnings and productivity together. Average weekly earnings in manufacturing are related to productivity in manufacturing which is the real value of manufacturing shipments divided by employment in manufacturing. The industries of forestry and transport equipment sell heavily in the export market, and since prices are set in that market rather than in Canada, Canadian wages in these industries respond to export prices rather than domestic variables. The wages and income sector is completed by calculating personal income (from wage and salary disbursements which are found from the employment and earnings equations and other personal income in Ontario) and personal disposable income.

The labour supply sector contains for the purposes at hand the important equation for net migration to Ontario. Note that this equation captures both movements to and from Ontario and other provinces and to and from Ontario and other countries. Slack or tightness in the Ontario labour market is reflected in the Ontario unemployment rate: as it rises, net migration falls, all else the same. The equation includes as an income measure the difference between the industrial composite of average weekly earnings in Ontario and the industrial component for Canada of average weekly earnings: as this difference increases, net migration rises. This captures both the greater attractiveness of Ontario for Canadians and for foreigners with respect to locating in other provinces. The model contains an identity for Ontario's total population, and Ontario's population age 14 and over is the same proportion of the total population as is Canada's population age 14 and over of the Canadian population. The participation rate is a function of real average weekly earnings, the Ontario birth rate, and the real value of non-wage income. Ontario's civilian labour force can be calculated, employment is known from another sector, and these two determine unemployment and the unemployment rate.

This is the essential structure of the model. Many variables enter equations with discrete or distributed lags to reflect the fact that effects take several quarters to work through the economy and that it may take several quarters before some variables influence other variables. With the model in mind, the simulations may be investigated.

Simulation Results

In the simulation results, net migration to Ontario is either assumed to fall (this is true in all but one case) or remain constant while migrants are allocated to different industries. This fall is

brought on by a decline in the total Canadian population of 20,000 per quarter due to tighter Canadian immigration controls which causes a fall in the Canadian population 14 years and over by 15,000 per quarter and in Canadian employment in the private sector by 10,000 per quarter. These latter two effects may not decline on a net basis by the exact amounts cited because of interaction or feedback effects in the Canadian model at the University of Toronto. As well as these immigration-induced effects, the Canadian model runs under a certain policy environment which is outlined in more detail in Canadian Review (December 1975). In short, the narrowly defined money supply is assumed to increase over the four quarters of 1976 at a rate of 10.3% and to decline further to 8.5% over the four quarters of 1977. Real government expenditures are projected to rise by 2.5% in 1976 and by another 4.2% in 1977. The wage and price guidelines are rigidly enforced and accepted by the public so that the consumer price index for Canada rises by 8.4% over the four quarters of 1976 and 5.3% over the following four quarters. There is therefore an attempt, although it may be crude, to take account of the anti-inflation program; but at this early stage of it when the simulations are run, the exact configuration of the program is not known for certain; and, the program has undergone some modifications through time. The Canadian model is run with these assumptions and certain solution values enter the Ontario model as predetermined variables.

The control solution for the Ontario model does not contain the immigration-induced fall in the Canadian and Ontario populations with attendant effects. The control solution becomes a basis for comparing the simulations when immigration and net migration change. The simulation results assume in general that the population changes in Canada as

outlined above lead to a gross fall in Ontario's net migration of 10,000 per quarter and in Ontario's employment of 5,000 per quarter which must be allocated to industrial sectors. The initial simulations can be described as follows:

- 1) Control -- no change in net migration and employment from most expected future trend;
- 2) Sim 1 -- immigration to Ontario falls 10,000 per quarter and employment in manufacturing falls 5,000 per quarter (all the direct employment effect of the migration change is in one sector);
- 3) Sim 2 -- immigration to Ontario falls 10,000 per quarter and employment in manufacturing falls 2,500 per quarter and employment in construction declines 2,500 per quarter (the direct employment effects are allocated to two sectors);
- 4) Sim 3 -- immigration to Ontario falls 10,000 per quarter and employment in manufacturing falls 2,500 per quarter and employment in commercial services declines 2,500 per quarter;
- 5) Sim 4 -- immigration to Canada and Ontario as in Control (i.e., no forced decline), and immigration is reallocated as follows: 2,500 more to manufacturing and 2,500 less to construction each quarter.

The Control solutions set out the path of the Ontario economy if there is no forced reduction below trends set already in Canada's and Ontario's immigration. Sim 1, 2, and 3 reduce immigration and allocate the direct employment effects to different sectors which are chosen because they employ substantial foreign born workers as Chapter IV pointed out. A comparison of Sim 2 and Sim 3 will indicate if it matters if workers are taken from construction or commercial services. Sim 4 does not reduce immigration below expected trends but it does allocate more migrant workers towards manufacturing than in the Control solution. These solutions reflect on the Green Paper's policy options of setting global and regional ceilings which could reduce immigration (Sim 1, 2, and 3), of gearing immigration more closely to labour market

opportunities (Sim 4 if they are in manufacturing rather than construction), and of keeping policy unchanged (Control solution). The results are instructive in seeing what these options may mean for Ontario.

Table 26 presents some of the results from the five simulation experiments. The use of computer models in this way is at best an art. Therefore, at this stage in the development of a model of the Ontario economy it is best to compare the changes in the variables among the different simulations and not to put too much emphasis on the absolute levels. Also, while some attempt is made to take wage-price controls into account through the University of Toronto's model, this is imperfect at best and probably should be worked more directly into the model of Ontario's economy. Data are given for each of the eight quarters in 1976 and 1977 and for the average value of each variable in each run for 1975, 1976, and 1977. Compare the Control with Sim 1 on the basis of what are called "goodness" criteria, namely the unemployment rate, average weekly earnings, disposable income per person, and wages and salaries paid per employee. Of course both the labour force and employment are lower in Sim 1 because net migration and population are reduced and the net effect of the first two determine whether unemployment will be different. For 1976, the reduction in net migration does not affect the unemployment rate as compared to Control in Sim 1 where all migrants are taken from manufacturing. An initial increase in unemployment compared with Control during 1976:2 and 1976:3 is reversed in 1976:4. The unemployment rate is higher than Control in 1976 for the other three simulations. The highest rate obtains if the level of migration is the same as Control but workers are reallocated from construction to manufacturing (Sim 4). The effect on unemployment is therefore the least different from Control if only manufacturing is affected. Ontario

TABLE 26
Forecasts of Ontario Economy

	Quarters								Years		
	76:1	76:2	76:3	76:4	77:1	77:2	77:3	77:4	75a	76	77
Net Migration: (th)											
Control	13.78	20.29	18.83	15.48	15.73	18.31	15.20	20.51	11.68	17.12	17.44
Sim 1	3.94	8.86	6.93	2.67	4.91	9.51	5.61	10.64		5.60	7.67
Sim 2	3.94	8.85	6.60	1.42	2.61	6.14	1.17	5.12		5.20	3.76
Sim 3	3.94	8.86	5.36	1.07	3.35	7.64	3.12	7.87		4.81	5.50
Sim 4	13.94	18.84	16.87	10.93	11.16	13.46	8.17	11.07		15.15	10.97
Population 14 +: (th)											
Control	6321	6362	6397	6441	6488	6535	6584	6632	6229	6380	6560
Sim 1	6304	6333	6358	6388	6427	6464	6505	6544		6346	6485
Sim 2	6304	6333	6358	6388	6426	6461	6499	6535		6346	6480
Sim 3	6304	6333	6358	6387	6425	6461	6499	6537		6346	6481
Sim 4	6312	6349	6381	6422	6464	6506	6549	6591		6366	6528
Labour Force: (th)											
Control	3865	3894	3922	3956	3974	3987	4007	4031	3803	3909	4000
Sim 1	3863	3884	3907	3932	3945	3952	3966	3987		3897	3938
Sim 2	3863	3884	3906	3931	3942	3948	3960	3979		3896	3957
Sim 3	3863	3884	3907	3931	3943	3949	3962	3982		3896	3959
Sim 4	3868	3893	3920	3951	3965	3974	3989	4011		3908	3985
Manufacturing Shipments 61 \$: (m.)											
Control	6283	6529	6629	6736	6897	7021	7106	7245	5838	6544	7067
Sim 1	6266	6497	6594	6675	6832	6984	7050	7180		6508	7012
Sim 2	6266	6497	6593	6670	6823	6973	7035	7161		6501	6998
Sim 3	6266	6497	6580	6661	6819	6972	7036	7166		6501	6998
Sim 4	6266	6498	6596	6668	6814	6956	7021	7142		6507	6983
Index of Employment, Composite:											
Control	151.1	154.2	157.9	160.7	161.7	163.7	166.0	168.9	146.9	156.0	165.1
Sim 1	150.5	153.3	156.9	159.7	160.4	162.4	164.8	167.4		155.1	163.8
Sim 2	150.5	153.2	156.6	159.4	159.9	161.8	164.1	166.6		154.9	163.1
Sim 3	150.6	153.4	157.0	159.8	160.4	162.4	164.8	167.4		155.2	163.8
Sim 4	150.9	153.6	157.2	160.0	160.6	162.5	164.8	167.4		155.4	163.8
Employment: (th)											
Control	3619	3648	3693	3740	3751	3794	3843	3888	3571	3675	3819
Sim 1	3614	3630	3677	3722	3726	3766	3819	3858		3661	3792
Sim 2	3613	3627	3671	3714	3715	3752	3801	3837		3656	3801
Sim 3	3606	3622	3670	3714	3716	3756	3807	3845		3653	3756
Sim 4	3619	3634	3679	3724	3728	3765	3815	3851		3664	3790
Unemployment Rate:											
Control	6.4	6.3	5.8	5.5	5.6	4.8	4.1	3.5	6.1	6.0	4.5
Sim 1	6.4	6.5	5.9	5.3	5.5	4.7	3.7	3.2		6.0	4.3
Sim 2	6.5	6.6	6.0	5.5	5.7	4.9	4.0	3.5		6.2	4.5
Sim 3	6.6	6.7	6.1	5.5	5.7	4.9	3.9	3.4		6.2	4.5
Sim 4	6.4	6.7	6.2	5.7	6.0	5.2	4.4	4.0		6.3	4.9

TABLE 26 - Cont'd.

	Quarters								Years		
	76:1	76:2	76:3	76:4	77:1	77:2	77:3	77:4	75 ^a	76	77
Average Weekly Earnings: (\$)											
Control	215.9	224.3	232.2	236.6	240.2	245.7	254.6	258.0	205.7	227.3	249.6
Sim 1	215.5	223.9	233.2	236.4	239.3	245.2	254.3	259.0		227.3	249.5
Sim 2	215.3	223.5	232.7	235.7	238.4	244.2	253.2	257.8		226.8	248.4
Sim 3	215.5	223.8	233.1	236.1	238.9	244.9	253.9	258.7		227.1	249.1
Sim 4	215.3	223.3	232.5	235.4	237.9	243.6	252.4	247.1		226.6	247.8
Disposable Income: (m. of \$)											
Control	11406	11801	12277	12479	12835	13192	13688	13893	10520	11991	13402
Sim 1	11385	11743	12270	12416	12722	13087	13600	13837		11954	13312
Sim 2	11375	11718	12231	12364	12655	13004	13500	13722		11922	13220
Sim 3	11369	11725	12250	12385	12584	13048	13557	13790		11932	13270
Sim 4	11390	11734	12249	12386	12677	13024	13519	13744		11940	13241
Retail Sales: (m. of \$)											
Control	4946	5126	5331	5487	5619	5722	5909	5993	4610	5222	5811
Sim 1	4938	5104	5329	5463	5575	5681	5875	5972		5209	5776
Sim 2	4934	5094	5314	5443	5548	5648	5835	5926		5196	5739
Sim 3	4931	5097	5321	5451	5560	5665	5858	5953		5200	5759
Sim 4	4940	5100	5321	5451	5557	5656	5843	5935		5203	5748
Productivity:											
Control	7.21	7.24	7.10	7.08	7.19	7.20	7.20	7.14	6.97	7.16	7.18
Sim 1	7.27	7.30	7.16	7.10	7.23	7.24	7.21	7.15		7.21	7.21
Sim 2	7.25	7.27	7.13	7.07	7.20	7.21	7.18	7.12		7.18	7.18
Sim 3	7.25	7.27	7.13	7.07	7.21	7.22	7.18	6.13		7.18	7.19
Sim 4	7.20	7.23	7.09	7.02	7.15	7.16	7.13	7.07		7.14	7.13
Disposable Income Per Person 14 +: (\$)											
Control	1804	1855	1919	1937	1978	2019	2079	2095	1688	1879	2043
Sim 1	1806	1854	1930	1944	1979	2025	2091	2114		1884	2052
Sim 2	1804	1850	1924	1936	1969	2013	2077	2100		1879	2040
Sim 3	1803	1851	1927	1939	1974	2020	2086	2110		1880	2048
Sim 4	1804	1848	1920	1929	1961	2002	2064	2085		1875	2028
Employment Index - Manufacturing:											
Control	137.1	141.5	146.5	148.7	149.1	151.0	152.6	156.6	131.8	143.5	152.3
Sim 1	135.5	139.7	144.3	146.8	146.5	149.2	151.0	154.9		141.6	150.4
Sim 2	136.0	140.2	144.8	147.3	147.0	150.0	151.3	155.1		142.1	150.9
Sim 3	136.0	140.1	144.7	147.1	146.8	149.5	151.3	155.2		142.0	150.7
Sim 4	137.0	141.2	145.9	148.3	148.0	150.5	152.1	155.9		143.1	151.6
Employment Index - Construction:											
Control	125.9	127.6	128.7	130.3	132.5	134.2	135.7	137.7	121.1	128.1	135.0
Sim 1	125.9	127.6	128.8	130.3	132.4	134.1	135.4	137.5		128.2	134.9
Sim 2	122.5	121.4	120.3	120.0	120.5	121.0	121.3	122.5		121.1	121.3
Sim 3	125.9	127.6	128.8	130.3	132.4	134.1	135.4	137.5		128.2	134.9
Sim 4	122.5	121.4	120.3	120.0	120.5	121.0	121.3	122.5		121.1	121.3

TABLE 26 - Cont'd.

	Quarters								Years		
	76:1	76:2	76:3	76:4	77:1	77:2	77:3	77:4	75 ^a	76	77
Employment Index - Services:											
Control	238.0	237.5	234.6	238.3	238.3	243.5	249.4	254.4	233.0	237.1	246.4
Sim 1	237.8	236.6	234.1	237.5	237.7	242.2	248.8	252.6		236.5	245.3
Sim 2	237.8	236.6	234.1	237.5	237.6	241.8	248.2	251.7		236.5	244.8
Sim 3	234.9	233.8	231.3	234.7	234.7	239.2	245.5	249.1		233.7	242.1
Sim 4	237.8	236.6	234.1	237.5	237.8	242.1	248.5	252.0		236.5	245.1
Average Weekly Earning - Manufacturing:											
Control	226.4	235.5	243.8	247.6	250.6	256.2	265.9	269.4	216.5	238.3	260.5
Sim 1	227.6	235.7	245.4	247.2	249.2	255.2	265.6	270.6		239.3	260.5
Sim 2	227.6	235.6	245.3	247.0	248.9	254.9	265.3	270.2		238.9	259.8
Sim 3	227.6	235.6	245.2	246.8	248.8	254.9	265.3	270.2		238.8	259.8
Sim 4	227.4	235.4	245.0	246.7	248.6	254.4	264.6	269.6		238.6	259.3
Average Weekly Earning - Construction:											
Control	326.1	346.6	360.8	367.4	372.5	382.1	398.8	404.7	296.7	350.2	389.5
Sim 1	328.2	347.0	363.6	366.7	370.1	380.5	398.2	406.8		351.4	388.9
Sim 2	328.1	346.8	363.4	366.4	370.0	380.0	397.6	406.1		351.2	388.4
Sim 3	328.1	346.8	363.3	366.0	369.4	379.8	397.6	406.1		351.1	388.2
Sim 4	327.8	346.5	362.9	365.9	369.0	379.1	396.6	405.1		350.8	387.5
Average Weekly Earning - Services:											
Control	157.6	163.9	169.6	172.2	174.3	178.2	184.9	187.3	149.9	165.8	181.2
Sim 1	158.5	164.1	170.7	172.0	173.4	177.5	184.7	188.1		166.3	180.9
Sim 2	158.4	164.0	170.6	171.8	173.2	177.3	184.4	187.9		166.2	180.7
Sim 3	158.4	164.0	170.6	171.7	173.1	177.3	184.4	187.9		166.2	180.7
Sim 4	158.3	163.8	170.5	171.7	172.9	177.0	184.0	187.5		166.1	180.4
Wages and Salaries Paid Per Employee: (\$)											
Control	2568	2683	2778	2836	2883	2954	3065	3122	2413	2716	3006
Sim 1	2566	2680	2789	2833	2872	2948	3062	3133		2717	3004
Sim 2	2564	2676	2783	2825	2862	2937	3050	3120		2712	2992
Sim 3	2568	2674	2781	2823	2857	2931	3042	3112		2711	2986

^aFor all simulations, the 1975 averages are the same so they are presented only one for each variable.

should attempt to concentrate the impact of any cutback in migration to that industrial sector rather than in services and construction at least. In 1977, only Sim 4 has a higher unemployment rate than Control and Sim 1 has a lower rate; this latter impact is especially marked in the last two quarters of 1977. Such a prediction into the future is tenuous given the likelihood of some change in policy which has not been accounted for in the simulations. In the short run or over four quarters, reducing migration leaves the unemployment rate about the same or slightly raises it as compared to not doing this.

This result for Ontario differs from the one found for Canada by Marr in his earlier study (Marr, 1973). There are a number of possible "explanations" for this. First, the structures of the two models are different; the Canadian model is essentially a demand driven mechanism with aggregate demand having the major role while the Ontario model emphasises to a greater extent the wage-employment side of the economy. For this reason, the Ontario model may pick up better labour market effects like unemployment. Second, the yearly changes in immigration in the Canadian study were larger than in the present Ontario study: 100,000 vs. 80,000. Third, the Canadian study run over eighteen years and the unemployment rate did rise on average, however the total effect was not fully effective immediately. The short term nature of the Ontario model has different dynamics. Fourth, it is possible that the rise in unemployment with the Canadian model was felt very little in Ontario where unemployment rates are relatively low and was concentrated in the rest of Canada. Fifth, the Canadian model does not allow the researcher to change the make-up of the labour force effected by varying immigration as is done here with the Ontario model. One important conclusion of this study is that this composition matters which was not

considered in the Canadian case.

Average weekly earnings are hardly affected by the changed migration level in 1976. In fact in the simulations where the service and construction sectors are directly involved, average weekly earnings are lower than in Control and Sim 1. Average weekly earnings in these sectors are not reduced as Table 26 shows, but the feedback effects on other sectors, especially transport equipment, lowers earnings there. In 1977, greater differences appear between Control and Sim 2, Sim 3, or Sim 4, but not between Control and Sim 1. Any lowering effect can be prevented if the direct impact of less migrants on employment can be confined to manufacturing. This ties in with the result on the unemployment rate where the conclusion was the same, and is useful information since some suggest that Third World and southern and eastern Europeans should be excluded from Canada; these latter groups tend to be more concentrated in the construction and service industry.

Disposable income per person is higher in Sim 1 than in Control; both disposable income and population fall with reduced net migration but the percentage fall in the latter is greater than the former. Most of this difference occurs in 1976:3 and 1976:4, two quarters after migration has been reduced. Again, the "worst" result happens in Sim 4: a reallocation away from construction is less favourable than reduced net migration with the direct employment effects bearing only on manufacturing. The other solutions lie between Sim 1 and Sim 4. The same pattern extends into 1977 with Sim 1, Sim 2, and Sim 3 all having higher disposable incomes per person than Control by 1977:4. A glance at wages and salaries paid per employee shows that the above comments apply here also, except that there is little difference between Control and Sim 1. The only relatively large difference occurs with Sim 4 where once again

a forced reallocation seems "inferior" to no change in net migration or to a reduction in net migration.

The policy conclusions from these simulations are clear. First, there is in general no drastic effect either favourable or unfavourable from reducing net migration through immigration. Second, if some change in migration policy must be implemented, it seems best to concentrate the direct employment effects on manufacturing rather than construction and/or commercial services.

For employment structure in 1976 and 1977, the index of employment in manufacturing, services, forestry, transport equipment, and utilities falls throughout in Sim 1 as compared with Control. This reflects falling retail sales and value of manufactured shipments along with rising average weekly earnings in manufacturing, services, forestry and utilities during 1976. The employment index for mining is unchanged in Sim 1 for 1976, but rises as compared with Control in 1977 because average weekly wages in that industry fall in Sim 1. The employment index for trade is about the same in the two simulation experiments.

One other simulation is carried out and it appears in Table 27. It attempts to test for the sensitivity of the results to changes in government policy variables other than migration. Control and Sim 1 are the same as before while the other experiment is:

Sim T -- immigration to Ontario falls 10,000 per quarter, employment in manufacturing falls 5,000 per quarter, and personal income taxes in Ontario rise 10% over what they are in Control (a tighter fiscal policy);

A comparison of Sim T and Sim 1 shows that a tighter fiscal policy lowers the index of employment; this is caused by a fall in retail sales and the value of manufacturing shipments which reduces employment in manufacturing; the fall in employment in Sim T as compared with Sim 1 is uniform in the sense that all industries are affected. The change in

TABLE 27

Sensitivity Testing

	Quarters								Years	
	76:1	76:2	76:3	76:4	77:1	77:2	77:3	77:4	76	77
Unemployment Rate:										
Control	6.4	6.3	5.8	5.5	5.6	4.8	4.1	3.5	6.0	4.5
Sim I	6.4	6.5	5.9	5.3	5.5	4.7	3.7	3.2	6.0	4.3
Sim T	6.4	6.6	5.9	5.4	5.7	4.9	4.0	3.5	6.1	4.5
Wages and Salaries										
Paid Per Employee: \$										
Control	2568	2683	2778	2836	2883	2954	3065	3122	2716	3006
Sim I	2566	2680	2789	2833	2872	2948	3062	3133	2717	3004
Sim T	2566	2680	2789	2833	2872	2949	3062	3132	2717	3004
Average Weekly										
Earnings: \$										
Control	215.9	224.3	232.2	236.6	240.2	245.7	254.6	258.0	227.3	249.6
Sim I	215.5	223.9	233.2	236.4	239.3	245.2	254.3	259.0	227.3	249.5
Sim T	215.5	223.9	233.2	236.4	239.3	245.3	254.3	259.0	227.3	249.5
Index of										
Employment:										
Control	151.1	154.2	157.9	160.7	161.7	163.7	166.0	168.9	156.0	165.1
Sim I	150.5	153.3	156.9	159.7	160.4	162.4	164.8	167.4	155.1	163.8
Sim T	150.5	153.2	156.8	159.5	160.0	161.9	164.3	166.9	155.0	163.3

fiscal policy also leads to a rise in the unemployment rate as a Keynesian would expect. While average weekly wages fall in most industries, total employment does the same and so the net effect is that average weekly earnings are unchanged. From a policy standpoint, this result shows that what the provincial government does to its fiscal policy when net migration changes influences the state of the economy and may confuse the issue if the two changes in Sim T, migration and fiscal policy, are not recognized. While the unemployment rate remained constant or fell in Sim 1 as compared to Control, it rose when the two changes are taken together. The different effects of the two changes, however, come out clearly when Sim 1 and Sim T are compared. In assessing economic changes, all contenders for the causes of these changes must be considered on their own merits and the effect of net migration should be isolated as these simulations attempt to do.

Chapter VII

Three Years in Ontario

Introduction

In terms of the entire Green Paper on Immigration, the volume Three Years in Canada provides some of the most interesting reading in the Report for anyone interested in studying the income and labour market effects and differences of immigrants. Part of any government's interest should be the removal of the labour market costs of immigration be they high unemployment, discouraged workers, long unemployment, low incomes, etc. The volume mentioned above points out some of these for Canada and the present chapter follows this up with an in-depth study of the Ontario situation. Where possible, differences and similarities with the Canadian situation will be noted. Part of the exercise involves simply raising questions which go beyond the scope of this work, but which require answers before a fully informed immigration policy can be set out. Some of this material has been dealt with in Chapters V and VI. Here it is studied within the context of Three Years in Canada which follows a cohort of immigrants through three years of adjusting to Canada; the earlier material presented a snap-shot picture since the data were drawn from either the 1971 Canadian census or the Micro Data File. The emphasis now shifts, in part, to changes over time, or to adjustments.

While data for Ontario from the Three Years in Canada are used, it is not exclusive. If useful, other data are brought in from time to time. Data from the Ontario sample of Three Years in Canada are available for all Ontario, Toronto, and other parts of Ontario separately.

The characteristics of the sample are described in Three Years in Canada (139-152) and are not repeated here.

Between Arrival and Work

The Ontario Government should have an interest in seeing that immigrants find employment as soon after arrival as possible. While too hasty a job search may be also detrimental if inefficient choices are made, too long a period before a first job is taken increases the probability that the migrant will become a burden on society with attendant costs to the government. One suggestion of the Green Paper is that immigration be more closely linked to labour market conditions than is now being done. This would reduce the time between arrival and first job, and in the case where only people with jobs waiting were admitted, there would be zero time between arrival and the first job.

Table 28 presents relevant data for Toronto, other parts of Ontario, and Canada. It takes less time for the immigrant without pre-arranged jobs to find work in Toronto (6.39 weeks) than in the rest of Ontario (6.56 weeks), but on the nationwide average the immigrant would even spend less time between arrival and starting work (5 weeks). However, it takes more time for immigrants with pre-arranged jobs to start working in Toronto (1.9 weeks) than in other parts of Ontario (1.852 weeks) and on the Ontario average (1.876 weeks). Compared to nationwide statistics, it takes the immigrant to Ontario a little longer to start working after they arrive (1.876 weeks vs. 1.7 weeks). Reasons may vary from time needed to look for a place to live, to taking language courses or perhaps the pre-arranged job started at a later date. Does it take a longer time for an immigrant to find living quarters in Toronto? Are Toronto employers more strict with language proficiency?

TABLE 28

Average Period Between Arrival in Canada
and Starting Work*

	Toronto	Oth. Ontario	Ontario	Nationwide Canada
Immi. w/o Pre-Arranged Jobs	6.393	6.563	6.460	5.0
Imm. with Pre-Arranged Jobs	1.911	1.852	1.876	1.7
Independent	4.689	3.720	4.271	3.3
Nominated	6.962	7.367	7.142	5.5
Sponsored and Others	8.590	8.473	8.540	7.5
35 Years of Age or Less	5.452	5.340	5.405	4.1
Over 35	6.748	5.114	5.949	4.4
Less Than High School Educ.	5.696	6.559	6.088	4.1
Higher Levels of Education	5.718	4.684	5.276	4.4
All Immigrants	4.8	4.7	5.2	4.2

* Figures expressed in weeks.

Source: Nationwide statistics are from Three Years in Canada, p. 19; the other data are special tabulations for this study.

It takes the independent immigrant more time to find or start working in Toronto (4.689 weeks) compared to other parts of Ontario (3.72 weeks). The Ontario average (4.271 weeks) is also greater than the Canadian average (3.3 weeks) on this count. In short, it takes the immigrant to Ontario (Toronto or otherwise) more time to start work after arrival than the immigrant across Canada. The nominated immigrant takes less time to start working in Toronto (6.962 weeks) than his other-Ontario counterpart (7.637 weeks). However, the nationwide figure (5.5 weeks) is still lower. The sponsored group follow the pattern of the independent group, but with absolute levels about twice as high.

Comparing the three immigrant categories, it takes the sponsored and nominated immigrant more time to start working than the independent immigrant. The latter has no visible means of support other than employment and wastes less time starting to work. The former are under less pressure to start work because they have relatives and friends to support them in the meantime. The former may also be less qualified to immediately start work in that educational and skill criteria form a smaller percentage of the point system in their case, or they may take more time surveying job opportunities than the independent immigrant.

It takes less time for the immigrant who is 35 years old or less from the nationwide sample to start work (4.1 weeks) than the Ontario immigrant (5.405 weeks). The difference is more dramatic for the immigrant who is over 35 years old. It takes him 6.748 weeks to start work in Toronto and only 5.114 weeks if he is not in Toronto, and it takes him a shorter period (4.9 weeks) in the nationwide statistics. Immigrants older than 35 years will take more time before starting work in Toronto (6.748 weeks) and throughout Canada (4.9 weeks) than their

younger counterparts except in areas outside Toronto (within Ontario) where immigrants over 35 years will take less time in getting started at work.

It takes less time for an immigrant with less than a high school education in Toronto (5.696 weeks) to start work than the immigrant in other parts of Ontario (6.559 weeks). However, it takes immigrants of higher levels of education more time to start work in Toronto (5.718 weeks) than in other parts of Ontario (4.684 weeks). From the Canadian statistics, the immigrant takes less time to start work if he has less than a high school education (4.1 weeks) than the one with a higher education (4.4 weeks). Both these figures are lower than the Ontario averages, so that judging from educational levels, it takes the Ontario immigrant more time to start work after arrival. In Ontario, it is the immigrant with a higher level of education who starts working earlier. This is surprising since greater benefits from searching out the best available job comes more to the better educated, but they may also have the higher opportunity cost in terms of income foregone while searching. The difference between the Ontario and nationwide sample comes from the other Ontario group who here act quite differently from those in Toronto.

Overall, immigrants to Ontario take longer to start working than the nationwide sample and immigrants to Toronto take generally longer to start working than immigrants to other parts of Ontario although there are some exceptions here. These facts may be due to the greater range and number of job opportunities in Ontario and Toronto. Job search and job change are important to a developing and efficient economy. While minimizing the interval between arrival and work may be desirable if the cause is a lack of education and skills on the part of the immigrant, it is also desirable that immigrants be placed in their most efficient

occupations. So while longer intervals may seem undesirable in Ontario, this need not be the case.

Unemployment

If it is suggested that a longer duration between arrival and starting work is a problem if caused by a lack of job opportunities due to educational, skill, or other immigrant related matters, or due to a cyclical downturn in Ontario's economy, then unemployment among immigrants sheds some light on the appearance of just such a cause. By Table 29 of the Toronto immigrants after one year, 7.1% of the males are unemployed and a smaller percentage of females, 6.3%, cannot find jobs. Also, there are more unemployed immigrant males (7.4%) than females (6.6%) according to the Canada-wide data. However, this trend is broken by the other Ontario figures which show that females have a much higher unemployment rate (13.9%) than males (7.9%). This high rate for females should be of concern to the Ontario government since resources are wasted and labour is misallocated. So in effect, the overall Ontario figures confirm this with a 7.5% unemployment rate among males and a 9% unemployment rate among female immigrants. Among female immigrants after one year, Ontario seems to have a problem that is quite severe as compared with the rest of Canada.

At the end of two years, more males were unemployed in Toronto (7% vs. 6.6%) but more females were unemployed in other parts of Ontario (4% vs. 7.8%) which is a continuation of the pattern after one year; similarly more females were unemployed across Canada (5.7% vs. 6.3%). At the end of three years, more females were unemployed in Toronto (5.9%) and across the province, but more males were unemployed across the country (4.8%). Therefore, while male immigrants to Ontario compare favourably with all Canadian immigrants, the female immigrant to Ontario

TABLE 29

Unemployment Rates among Immigrants, by Sex*

		Toronto		Other-Ontario		Ontario		Canada	
		M	F	M	F	M	F	M	F
1 Year	Employment	92.9	93.7	92.1	86.1	92.5	91.0	92.6	93.4
	Unemployment	7.1	6.3	7.9	13.9	7.5	9.0	7.4	6.6
2 Years	Employment	83.0	93.4	96.0	92.2	94.4	93.	94.3	93.7
	Unemployment	7.0	6.6	4.0	7.8	5.6	7.0	5.7	6.3
3 Years	Employment	95.6	94.1	96.6	94.6	96.0	94.2	95.2	96.2
	Unemployment	4.4	5.9	3.4	5.4	4.0	5.8	4.8	3.8

* All figures in percentages.

Source: Figures for Canada are from Three Years in Canada, p. 23; the other data are special tabulations for this study.

generally has a significantly higher unemployment rate than Canadian female immigrants as a group. Special attention in Ontario to the female group seems in order.

Over the three years the unemployment rate among the immigrants generally falls fairly consistently so that after three years the male rate is below 5% and the female rate is less than 6%. But additional problems appear to arise in Toronto; the male and female unemployment rates are about the same for years one and two; unemployment among immigrants appears to be especially long lasting here. However, the female unemployment rate for immigrants is even higher in other parts of Ontario (7.8%). After three years, the female unemployment rate among Toronto immigrants is just slightly below the first year unemployment rate. From a position of the higher unemployment rates after one year, the rest of Ontario have the lower rates as compared with Toronto after three years. It is possible that the other parts of Ontario solved their unemployment problem when immigrants moved to Toronto after an initial stay in other centres.

Table 30 amplifies this discussion of immigrant unemployment by providing data for 1971 by birthplace and period of immigration. Since the majority of immigrants live in the large urban areas of Ontario, the unemployment rate in 1971 for Ontario urban areas with a population of one-half million or more provides a good comparison; the rate in these centres was 6.3% for males, 7.8% for females, and 6.9% for both sexes together (Census of Canada, 94-703, Vol. III, Part 1, Table 4). In comparison, male immigrants have a lower unemployment rate (5.6%) and female immigrants have a higher unemployment rate (8.2%) than the Canadian born labour force. This coincides with the views from Table 29 that the relative unemployment problem among immigrants is largely a

TABLE 30

Unemployment Rates of Foreign Born 15 Years and Over by
Period of Immigration, Birthplace, and Sex, Ontario, 1971

Birthplace	Total	Before 1946	1946- 1955	1956- 1960	1961- 1964	1965- 1968	1969- 1971
<u>Males</u>							
U.S.A.	5.2	3.2	6.4	7.6	6.3	5.9	7.3
U.K.	5.1	5.8	4.5	5.4	5.5	4.8	5.0
Northern and Western Europe	4.5	7.9	3.9	4.7	3.6	4.7	5.9
Southern Europe	5.5	4.4	5.0	5.5	5.1	5.8	7.7
Eastern Europe	5.8	6.4	4.6	6.3	7.8	8.5	12.9
Asia	8.9	5.9	4.2	7.0	7.2	7.8	14.7
Africa	8.1	6.7	4.8	8.3	4.3	8.1	14.0
Latin America	8.3	0.0	2.4	9.0	5.0	7.2	12.7
West Indies	10.4	4.0	5.7	6.5	6.6	9.5	14.8
All Other Countries	7.4	5.4	3.5	7.6	7.6	6.6	11.1
Total	5.6	5.7	4.5	5.5	5.3	6.1	9.6
<u>Females</u>							
U.S.A.	7.5	4.8	8.7	10.1	9.4	8.6	10.8
U.K.	7.1	6.2	6.7	8.6	6.9	7.9	6.4
Northern and Western Europe	7.0	6.2	6.2	8.0	7.9	8.3	9.9
Southern Europe	9.5	6.3	7.4	9.4	11.1	9.8	13.5
Eastern Europe	7.8	6.6	5.5	9.8	11.2	11.3	21.1
Asia	10.7	5.9	8.1	7.7	7.9	8.1	17.0
Africa	10.5	3.2	6.4	10.7	5.7	9.5	19.2
Latin America	11.0	3.7	10.9	9.3	4.7	10.8	14.8
West Indies	10.3	9.0	6.5	5.7	5.2	9.8	13.9
All Other Countries	6.8	7.7	7.5	6.9	5.0	8.2	5.2
Total	8.2	6.0	6.6	8.8	8.9	9.1	12.5

Source: Special Census Tabulations.

female worker problem. Scanning across the male total by period of immigration, only the most recent arrivals have an unemployment rate higher than the larger urban rate of 6.3% mentioned above. For female immigrants, those who migrated before 1956 have a lower unemployment rate than the large urban rate for females; those who came since 1955 have a higher rate. The female unemployment rate of immigrants rises continuously for more recent periods of immigration; the male unemployment rate reacts similarly, but the before 1946 group is non-conforming and the absolute levels are always below the female rate for the same period of immigration.

For male immigrants by birthplace, the total falls into three groupings: (1) the U.S., the U.K., Northern and Western Europe, Southern Europe, and Eastern Europe; (2) Asia, Africa, Latin America, all other countries; (3) West Indies. However, this pattern is not consistent by period of immigration, and in fact none conform in all respects. The West Indies group, for example, has lower unemployment rates than the average for the before 1946 period of immigration; this is true for the Latin America group for the 1946-1955 and 1961-1964 periods of immigration. The Asian group has two periods when its unemployment rate is below the rate for immigrants with U.S. birthplace. In 1971, the members of the first group each had lower unemployment rates than the large urban rate for males while the last two groups had higher rates. Among the most recent immigrants, only those from the U.K. and Northern and Western Europe had unemployment rates lower than the large urban rate. In conclusion for males, the unemployment focus must be put on the most recent arrivals and on those from the non-European, non-U.S. parts of the world. One exception deserves note however; immigrants

from Eastern Europe tend to have relatively high unemployment rates also.

The pattern for female immigrants is more complex and only a few points are made here. For the total female group, those from the U.S., the U.K., Northern and Western Europe, Eastern Europe, and all other countries have lower unemployment rates than the average for all female immigrants, and all but Eastern Europe have lower unemployment rates than the average of 7.8% for large urban centres. In spite of their relatively high total unemployment rates, those from Asia, Africa, and the West Indies had lower unemployment rates than those from the U.S. for immigration periods 1946 to 1964. For the birthplaces of the West Indies and all other countries, the female unemployment rate is generally lower than the male unemployment rate; the usual or predominant pattern is however the opposite. Beyond this few generalizations are possible.

It is hypothesized that immigrants will have higher unemployment rates when they are in occupations with no demand than in occupations with some demand. It is also hypothesized that immigrants will have higher unemployment rates when they are in occupations with some demand but no pre-arranged job than in occupations with some demand and a pre-arranged job. Table 31 presents data to test these hypotheses for Canada and Ontario. As expected, after six months, immigrants with pre-arranged jobs are unemployed the least. After one, two, and three years, the data continue to confirm this hypothesis. The first hypothesis is verified for the Canada-wide sample, namely that unemployment is higher among immigrants whose occupation has no demand than among those with some demand. Ontario's sample does not support the hypothesis after two years; after three years, the Ontario sample show

TABLE 31

Impact of Occupational Demand on Unemployment*

	Toronto			Other - Ontario			Ontario			Canada		
	Occ. Ar. 1	Occ. Ar. 2	No Demand 3	Occ. Ar. 1	Occ. Ar. 2	No Demand 3	Occ. Ar. 1	Occ. Ar. 2	No Demand 3	Occ. Ar. 1	Occ. Ar. 2	No Demand 3
6 Months Employed	88.4	96.4	86.5	89	85.5	98	88.5	97.4	85.8	89.2	98.2	83.2
Unemployed	11.6	3.6	13.5	11.5	2.0	15	11.5	2.6	14.2	10.8	1.8	16.8
1 Year Employed	93.2	95.9	91.5	90.6	94.8	90.5	92.2	95.2	91.0	96.0	92.2	90.7
Unemployed	6.8	4.1	8.5	9.4	5.2	9.5	7.8	4.8	9.0	7.8	4.0	9.3
2 Years Employed	93.3	97.5	93.4	95.2	96.8	95.4	94.0	97.0	93.5	94.3	98.5	91.3
Unemployed	6.7	2.5	6.6	4.8	3.2	4.6	6.0	3.0	6.5	5.7	1.5	8.7
3 Years Employed	94.8	97.4	95.9	96.3	98.7	95.7	95.3	98.2	95.8	92.8	97.4	90.-
Unemployed	5.2	2.6	4.1	3.7	1.3	4.3	4.7	1.8	4.2	7.2	2.6	10.0

* Figures expressed in percentages.

Source: The Canada figures are from Three Years in Canada, p. 24; other data are special tabulations for this study.

higher unemployment rates for those with some demand than those with no demand. The Toronto sub-set shows higher unemployment rates for those with some demand after two and three years. Those immigrants in occupations with no demand reduce substantially their unemployment rate over the three years; unfortunately the data does not tell if people leave these occupations after first attempting to enter them or if demand picks up in them even though there was no demand originally. After two and after three years all three Ontario sets have lower unemployment rates in the no demand category than Canada as a whole; this is significant in view of the economic undesirability of having workers in occupations where there is no demand; the adjustment of labour markets appears to take place more smoothly in Ontario than Canada-wide. In conclusion, those immigrants with arranged jobs have the lowest unemployment rates after six months and maintain this advantage after one, two, and three years. This seems to lend support to the Green Paper's option of tying immigration more closely to labour market conditions in Canada, although the labour market in Ontario appears to adjust to occupations with no demand which tends to diminish the need to devote too many resources to linking immigration with pre-arranged jobs.

Employment Experience

Data on the occupations of Ontario's immigrants were presented earlier in Chapter V, but that data referred only to one year, 1971. Table 32 adds to that material by presenting occupational distributions for Toronto separately and for two time periods for the same group of immigrants, after one and three years in Canada. Some observations will be made first about the occupational distribution after one year in Canada (or Ontario).

TABLE 32

Occupational Distribution of Immigrants by Age
(Percentage Distribution)

	Toronto			Other - Ontario			Ontario			Canada		
	15-24	25-44	45+	15-24	25-44	45+	15-24	25-44	45+	15-24	25-44	45+
	After 1 Year											
Managerial, Prof. & Technical	17.8	31.5	32.1	15.9	35.1	26.5	17	33.1	29.4	27	43	44
Clerical & Sales	25.3	14.9	15.6	16.8	7.8	11.7	21.9	11.7	13.7	19	11	13
Service & Recreation	12.6	9.3	20.4	11.7	9.7	13.8	12.3	9.5	17.3	13	9	13
Trans. Com.	0.8	1.3	1.9	1.7	0.7	3.2	1.2	1.0	2.5			
Farmers	0.3	0.7	0.5	2.4	2.2	3.2	1.2	1.4	1.5			
Loggers	0.2		1.0				0.1		0.5			
Fish Trap, Hn.		0.1										
Miners	0.2	0.3		0.5	0.6		0.3	0.4				
Craftsmen	24.5	24.2	11.7	30.6	25.	20.2	26.9	24.6	15.7	30	29	17
Laborers	7.2	5.9	7.8	8.6	9.5	10.6	7.7	7.5	9.1			
All Others										11	8	13
Not Stated	11.1	11.7	9.7	11.7	9.5	10.6	11.4	10.7	10.2	(9)	(8)	(11)
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100
	After 3 Years											
Managerial, Prof. & Technical	21.8	35.8	34.4	24.3	38.4	33.6	22.7	36.9	34.1	32	48	47
Clerical & Sales	22.8	13.9	9.4	14.3	7.5	9.5	19.3	11.	9.4	21	11	15
Service & Recreation	7.4	6.4	15.6	7.0	6.6	7.4	7.2	6.5	11.5	9	9	15
Trans. Com.	1.6	1.4	1.0	1.8	1.3	3.2	1.7	1.3	2.1			
Farmers	.4	.5		2.1	.8	1.1	1.0	.6	.5			
Loggers			1.0						.5			
Fish Trap, Hn.		.1										
Miners	.4	.1		.3	.2		.3	.1				
Craftsmen	23.	19.0	8.3	26.1	21.1	16.8	24.2	19.9	12.6	29	25	17
Laborers	8.6	9.5	10.6	7.7	7.5	9.1	3.2	3.6	2.1			
All Others										9	7	
Not Stated	19.6	19.3	28.1	19.6	19.2	20.0	19.6	19.3	24.1	(26)	(12)	(34)
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

Source: Canada data are from Three Years in Canada, p. 30; other data are from special tabulations.

After one year in Toronto, one out of four younger immigrants (15-24 years old) are either in clerical and sales occupations or are exercising their craft. The trend follows outside Toronto with 30.6% of the immigrants exercising their crafts and a smaller percentage (16.8%) being in clerical and sales positions. Because of the fact that 25% of the 15-24 year old immigrants find clerical and sales jobs in Toronto, there may be greater opportunities in this field in Toronto than in the rest of Canada, including other parts of Ontario. There must be a greater demand for the middle age group (25-44 years old) in the managerial, professional and technical positions because there is a clear shift to these occupations from the 15-24 age group. There seems to be a shift from the clerical and sales occupations into the managerial, professional, and technical occupations. The craftsmen occupation has roughly the same percentage for each area in the 15-24 and 25-44 age groups, but falls off dramatically for the 45+ age group. There is a decrease in the percentage of immigrants in the managerial, professional and technical occupations as the immigrants get older (45 and over). There is an increase in the sales and recreation occupations for people in this age group. Few Ontario immigrants are in farming, logging, trapping, and mining occupations, although the percentage is obviously higher from Ontario outside Toronto. The percentage of craftsmen decline from the 15-24 age group to the 45 and over age group.

The data after three years looks at the same cohort of immigrants, but with two more years of labour market experience. After three years in Toronto, there is a shift among 15-24 year old immigrants from clerical and sales occupations and service and recreational occupations to managerial, professional, and technical occupations. People in craftsmen occupations retain their percentage of the pool. This trend

follows for Toronto immigrants between the ages of 25 and 44, although the shift is less due to reduced mobility with age. Immigrants in Toronto 45 years and above move in the same directions. The pattern in other parts of Ontario mirror the scheme set out for Toronto: to managerial, professional, and technical, and away from clerical and sales and service and recreation. In Ontario, the percentage of immigrants in the craftsmen and labourers occupations decreases after three years for all age groups and locations; at least the latter occupational shift represents a movement from lower skill to higher skill occupations. Table 7A.2 in the appendix of this chapter relates occupational distribution to years of schooling. The same pattern of moving towards the managerial, professional, and technical occupations is seen.

From Table 33, in Toronto after one year, 46% of the immigrants whose jobs were not pre-arranged but were in occupations with some demand were not in their intended occupation and 49% were. The Canada-wide sample has a lower percentage not in their intended occupation (44%). After two years, the percentage not in their intended occupation decreases; in Toronto, the immigrants were able to move somewhat to their intended occupation. However, after three years, the Yes column decreases to 51.9%; this parallels the fall for the Canada-wide sample. For the job not arranged but occupation in demand group in the rest of Ontario, after one year a larger percentage were not in their intended occupation than in Toronto; after two and three years the percentage not in their intended occupation falls as it does in Toronto.

For those who had pre-arranged jobs, there is less mobility from the jobs they originally took. The percentage not in their intended occupation is much lower for those with pre-arranged jobs than for those without pre-arranged jobs. This is as expected in view of the job

TABLE 33
Percentage of Immigrants Not in Intended Occupation

		Toronto			Other - Ontario			Ontario			Canada		
		Job Not Arr.	Job Arr.	No Occ. Dem.	Job Not Arr.	Job Arr.	No Occ. Dem.	Job Not Arr.	Job Arr.	No Occ. Dem.	Job Not Arr.	Job Arr.	No Occ. Dem.
After 6 Months	Yes	44.4	78.4	39.3	46.-	75.6	38.9	45.	76.7	39.1			
	No	46.9	18.1	51.9	44.3	21.2	51.4	46.	20.	51.7	44	18	66
	No Ans.	8.6	3.5	8.8	9.7	3.2	9.6	9.0	3.3	9.2			
After 1 Year	Yes	49.8	79.4	42.8	47.7	71.5	42.8	49.0	74.6	42.8			
	No	46.4	18.6	52.7	49.2	26.3	53.1	47.5	23.3	52.8	41	21	58
	No Ans.	3.8	2.0	4.5	3.1	2.2	4.2	3.5	2.2	4.4			
After 2 Years	Yes	53.3	80.4	46.5	50.7	76.3	44.7	52.3	77.9	45.7			
	No	43.4	16.6	48.7	44.5	21.8	49.5	43.8	19.8	49.1	41	18	61
	No Ans.	3.2	3.0	4.8	4.8	1.9	5.8	3.8	2.3	5.3			
After 3 Years	Yes	51.9	71.9	49.5	55.2	77.6	46.0	53.1	75.3	47.9			
	No	31.1	16.6	34.5	31.0	14.1	38.3	31.1	15.1	36.2	30	15	54
	No Ans.	17.0	11.6	16.-	13.8	8.3	15.8	15.8	9.6	15.9			

TOTALS				
For Not In Intended Occupation				
	Toronto	Oth. Ontario	Ontario	Canada
After 6 months	44.6	40.5	42.8	41
After 1 Year	44.5	44.6	44.6	39
After 2 Years	41.4	40.3	40.9	38
After 3 Years	30.2	28.7	29.5	31
3-Year Average	40	38.5	39.4	37

Source: Canada data are from Three Years in Canada, p. 33; other data are from special tabulations.

arrangement. In this group, Ontario has a slightly larger percentage not in their intended occupation than the Canada-wide sample.

The main difference between Ontario and the rest of Canada occurs with immigrants who are in occupations where there is no demand. After 6 months, 66% of Canadian immigrants are not in their intended occupation (versus 51.7% in Ontario), 58% after one year (versus 52.8% in Ontario), 61% after two years (versus 49% in Ontario), and 54% after three years (versus 36.2% in Ontario). Immigrants to Ontario find it easier getting into an occupation that was closer to their intended occupation as early as six months after arrival even when their occupation has no demand. This attests to the labour market adjustments which were mentioned earlier; the adjustment is taking place.

Table 34 looks closely at the reasons for not being in the intended occupation; after all, the government must work on removing the causes if more immigrants are to find employment in their intended occupation. After one year, there is little or no difference between Canada and Ontario; the ranking of causes is identical, with the most important being lack of Canadian experience, intended job not available, language problems, and qualifications not recognized by unions. The rest of Ontario outside Toronto is different in one aspect, namely intended job not available is more important than lack of Canadian experience. After two years, intended job not available and lack of Canadian experience are still ranked first or second; the language problem is less important while qualifications not recognized by unions is more important. Once again, the Ontario pattern is similar to the Canada-wide sample. The response of 'chose different job' is also more important, especially in Ontario; this is not unexpected as immigrants leave intended occupation for a different occupation with higher income and/or prestige. This

TABLE 34

Persons Not in Intended Occupation, by Cause

	NUMBER				PERCENTAGE			
	Toronto	Oth-Ontario	Ontario	Canada	Toronto	Oth-Ontario	Ontario	Canada
<u>After One Year:</u>								
Intended Job Not Available	202	185	387	195	19.2	23.6	21.	21
Qualifications Not Recognized by Unions	141	114	255	130	13.4	14.5	13.9	14
Qualifications Not Accepted by Employer	74	54	128	77	7.	6.9	7.0	8
Lack of Canadian Experience	279	152	431	206	26.6	19.4	23.5	22.
Language Problems	159	132	291	152	15.1	16.8	15.9	16
Chose Different Job	114	75	189	98	10.9	9.6	10.3	11
Other Reasons	<u>81</u>	<u>73</u>	<u>154</u>	<u>77</u>	<u>7.7</u>	<u>9.3</u>	<u>8.4</u>	<u>8</u>
NOT IN INTENDED OCC.	1050	785	1835	935	100	100	100	100
<u>After Two Years:</u>								
Intended Job Not Available	165	402	307	190	18.6	20.6	19.5	22
Qualifications Not Recognized by Unions	118	102	220	125	13.3	14.8	14.0	15
Qualifications Not Accepted by Employer	65	58	123	76	7.3	8.4	7.8	9
Lack of Canadian Experience	215	319	354	177	24.2	20.	22.4	21
Language Problems	120	189	209	116	13.5	12.9	13.3	13
Chose Different Job	142	87	229	103	16.	12.6	14.5	12
Other Reasons	<u>63</u>	<u>72</u>	<u>135</u>	<u>75</u>	<u>7.1</u>	<u>10.4</u>	<u>8.6</u>	<u>8</u>
NOT IN INTENDED OCC.	888	689	1577	862	100	100	100	100
<u>After Three Years:</u>								
Intended Job Not Available	91	77	168	102	16.5	19.2	17.6	19
Qualifications Not Recognized by Unions	83	68	151	92	15.	16.9	15.8	17
Qualifications Not Accepted by Employer	37	17	54	35	6.7	4.2	5.7	7
Lack of Canadian Experience	102	85	187	102	18.4	21.1	19.6	19
Language Problems	58	40	98	44	10.5	10.	10.3	8
Chose Different Job	145	85	230	116	26.2	21.1	24.1	22
Other Reasons	<u>37</u>	<u>30</u>	<u>67</u>	<u>44</u>	<u>6.7</u>	<u>7.5</u>	<u>7.0</u>	<u>8</u>
NOT IN INTENDED OCC.	553	402	955	535	100	100	100	100

Source: Canada data are from Three Years in Canada, p. 34; other data are from special tabulations.

cause is the first ranked after three years, but lack of experience and intended job not available are still prominent. The importance of unions not recognizing qualifications has increased further. The language problem is less significant after three years. In conclusion, as changing jobs is to be applauded and is not a problem, the three areas for emphasis as causes are non-recognition of qualifications by unions and employers, lack of Canadian experience, and intended job not available.

Tables 35 and 36 extend the results of the last table to different age groups and educational levels. A number of salient points of comparison may be noted:

- 1) while qualifications not recognized is an important cause after one year for older workers, its importance falls considerably after two years; except for the youngest age group, this cause is generally more important in Ontario than in Canada;
- 2) qualifications not recognized is an increasing percentage for those with 1-8 years of schooling, especially for the Toronto group; those with 14+ years of schooling have more problems getting their qualifications recognized or accepted;
- 3) while language is a greater problem for the older immigrant both in Ontario and Canada, for the two youngest age groups, language is more of a problem in Ontario than in Canada; also language becomes less of a problem for these younger age groups;
- 4) language is a problem for those with 1-8 years education, and more so in Ontario than Canada-wide; this is not a severe problem for the other schooling levels, and they have lower percentages than the Canada-wide sample;
- 5) the greater adjustment and mobility of the Ontario labour market is again brought out by the growing percentages who list "chose different job" as a cause for all age groups and educational levels;
- 6) intended job not available is an increasing proportion of responses for the older worker and the most educated worker; Ontario has more of a problem here for the older worker and less of a problem here for the most educated worker than the rest of Canada;

TABLE 35
Reasons for Not Being in Intended Occupation, by Age
(Percentage Distribution)

Reason	AGE 15 - 24				AGE 25 - 44				AGE 45 AND OVER			
	Toronto	Oth-Ontario	Ontario	Canada	Toronto	Oth-Ontario	Ontario	Canada	Toronto	Oth-Ontario	Ontario	Canada
<u>After One Year:</u>												
Intended Job Not Available	19.7	23.0	21.2	18	19.1	22.4	20.5	22	17.7	32.8	25.2	20
Qualifications Not Recognized	11.2	14.2	12.4	13	14.5	14.4	14.5	14	16.1	16.4	16.3	12
Qualifications Not Accepted	8.2	5.3	7.0	10	6.4	7.7	7.0	7	6.5	6.6	6.5	9
Lack of Canadian Experience	26.5	22.4	24.8	22	28.1	18.4	23.9	23	11.3	14.8	13.	17
Language Problems	12.3	17.5	14.4	14	16.4	17.4	16.8	17	19.4	9.8	14.6	21
Chose Different Job	13.9	8.5	11.8	15	9.2	10.	9.5	9	9.7	9.8	9.8	4
Other Reasons	8.2	8.5	8.3	8	6.3	9.6	7.7	8	19.4	9.8	14.6	17
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100
<u>After Two Years:</u>												
Intended Job Not Available	17.7	19.7	18.5	24	17.5	21.1	19.1	21	34.0	21.1	27.3	25
Qualifications Not Recognized	11.4	13.5	12.3	14	15.2	16.1	15.6	16	5.7	10.5	8.2	7
Qualifications Not Accepted	7.3	8.3	7.7	9	7.9	8.4	8.1	9	1.9	8.8	5.5	6
Lack of Canadian Experience	25.6	23.1	24.6	23	23.9	18.1	21.4	20	18.9	22.8	20.9	16
Language Problems	11.4	11.8	11.6	9	14.1	13.2	13.7	15	20.8	15.8	15.2	22
Chose Different Job	19.3	14.0	17.1	13	14.8	11.7	13.4	11	7.5	14.0	10.9	12
Other Reasons	7.3	9.6	8.3	8	6.6	11.4	8.7	8	11.3	7.0	9.1	12
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100
<u>After Three Years:</u>												
Intended Job Not Available	16.3	13.2	15.1	16	14.1	21.1	17.2	20	40.6	28.1	34.4	24
Qualifications Not Recognized	11.0	10.3	10.7	17	18.6	21.4	19.8	19	6.3	12.5	9.4	5
Qualifications Not Accepted	6.7	2.9	5.2	5	7.1	5.6	6.4	8	3.1		1.6	3
Lack of Canadian Experience	19.6	25.7	22.0	18	18.3	17.9	18.1	19	12.5	25.0	18.89	18
Language Problems	8.1	8.1	8.1	6	10.9	11.5	11.2	8	21.9	6.3	14.19	18
Chose Different Job	31.6	33.1	32.2	50	24.	14.5	20.	19	12.5	18.8	15.6	11
Other Reasons	6.7	6.6	6.7	8	7.1	7.7	7.3	7	3.1	9.4	6.3	21
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

Source: Canada data are from Three Years in Canada, pp. 36-37; other data are from special tabulations.

TABLE 36

Reasons for Not Being in Intended Occupation, by Years of Schooling
(Percentage Distribution)

Reasons	GRADES 1 - 8				GRADES 9 - 13				GRADE 14 AND ABOVE			
	Toronto	Oth-Ontario	Ontario	Canada	Toronto	Oth-Ontario	Ontario	Canada	Toronto	Oth-Ontario	Ontario	Canada
<u>After One Year:</u>												
Intended Occ.												
Not Available	17.	24.2	20.1	21	22.1	24.7	23.2	22	18.	19.3	18.6	17
Not Recognized												
by Unions	7.8	9.7	8.6	9	14.9	15.1	15.0	14	22.	23.6	22.6	22
Not Accepted												
by Employers	4.9	3.5	4.3	5	7.9	9.3	8.5	10	9.3	7.9	8.7	9
Lack of Canadian												
Experience	23.4	14.2	19.4	19	28.4	21.4	25.3	24	29.3	26.4	28.1	22
Language												
Problems	28.	31.6	29.5	25	7.9	8.1	8.0	12	4.4	5.0	4.6	13
Chose Diff. Job	13.4	8.1	11.1	12	10.7	12.7	11.5	11	6.3	5.7	6.1	6
Other Reasons	5.6	8.7	6.9	9	8.1	8.7	8.4	7	10.7	12.1	11.3	11
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100
<u>After Two Years:</u>												
Intended Occ.												
Not Available	16.6	22.3	19.1	22	19.1	21.4	20.1	21	22.0	15.2	19.0	23
Not Recognized												
by Unions	10.2	11.0	10.6	14	12.1	13.2	12.6	11	22.0	26.4	23.9	24
Not Accepted												
by Employers	4.8	6.4	5.5	7	9.0	10.5	9.7	11	8.5	7.2	8.0	8
Lack of Canadian												
Experience	23.2	16.7	20.3	19	26.4	21.4	24.2	22	20.7	24.8	22.5	18
Language												
Problems	25.3	22.7	24.2	21	7.0	8.5	7.6	11	4.9	3.2	4.2	9
Chose Diff. Job	15.4	11.4	13.6	7	18.3	14.9	16.9	17	12.2	10.4	11.4	8
Other Reasons	4.5	9.5	6.7	10	8.0	10.2	8.9	7	9.8	12.8	11.1	10
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100
<u>After Three Years:</u>												
Intended Occ.												
Not Available	17.3	16.2	16.9	19	15.	17.	15.9	16	19.1	28.	23.2	26
Not Recognized												
by Unions	10.6	11.8	11.0	15	16.2	17.	16.6	16	22.5	26.7	24.4	24
Not Accepted												
by Employers	3.8	2.9	3.5	5	8.3	5.3	7.0	8	7.9	4.0	6.1	5
Lack of Canadian												
Experience	15.4	23.5	18.6	19	20.2	21.3	20.6	20	21.3	17.3	19.5	17
Language												
Problems	19.7	19.1	19.5	14	5.5	5.9	5.7	7	3.4	4.0	3.7	3
Chose Diff. Job	28.4	21.3	25.6	20	28.5	24.5	26.8	26	14.6	13.3	14.	11
Other Reasons	4.8	5.1	4.9	8	6.3	9.0	7.5	7	11.2	6.7	9.1	4
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

Source: Canada data are from Three Years in Canada, pp. 38-39; other data are from special tabulations.

- 7) if chose different job is left out, after three years in Ontario age group 15-24 gives lack of Canadian experience most often, age group 25-44 gives qualifications not recognized most often although lack of Canadian experience is next, and age group 45 and over gives intended job not available most often although again lack of Canadian experience is next;
- 8) if chose different job is left out, after three years in Ontario those with 1-8 years of schooling give language problem most often with lack of Canadian experience next, those with 9-13 years of schooling give lack of Canadian experience most often with qualifications not recognized next, and those with 14+ years of schooling give qualifications not recognized most often and intended occupation not available next.

The next aspect of employment experience to be investigated is job mobility. Table 37 presents some mobility information by age groups. There is a significant difference in the totals between Ontario and Canada-wide samples. Almost 50% of the Canadian immigrants held only one job during their first three years in Canada while 37% of Ontario immigrants held only one job over the same number of years. This is true for all age groups, although the difference is less pronounced for ages 45 and over. Even when the "no answers" are removed and the percentages are recalculated, the Ontario immigrant shows more job mobility than the Canada-wide sample. Comparing Toronto with the rest of Ontario, the Toronto group has generally higher percentages with two jobs and lower percentages with one job; they tend to be the most mobile of the three groups at all age groups. Both the Ontario and Canada-wide samples show a decreasing propensity to change jobs with higher age, and this gap is larger for the Ontario group than the Canada-wide group.

As in the case of all immigrants in the Canadian sample, Ontario's immigrants show less job mobility as level of schooling rises (Table 38). The rest of Ontario however exhibit little difference between 1-8 years and 9-13 years, while Toronto shows a significant rise in the

TABLE 37
Full-Time Jobs, by Age, During the First Three Years in Canada

Number of Jobs	A G E S 1 5 - 2 4			A G E S 2 5 - 4 4			A G E 4 5 A N D O V E R			
	Toronto	Other-Ontario	Ontario	Canada	Toronto	Other-Ontario	Ontario	Canada	Toronto	Other-Ontario
0	.5	.7	.6		.3	.2	.3		.9	2.0
1	27.9	31.1	29.2	40	37.2	41.7	39.2	50	46.9	52.0
2	25.6	22.5	24.4	24	27.4	25.8	26.7	26	20.4	21.0
3	16.2	16.7	16.4	18	14.7	15.1	14.9	13	14.2	13.0
4	14.4	16.0	15.1	18	13.0	10.2	11.8	11	9.7	5.0
No Answer	15.3	12.9	14.3	--	7.3	7.0	7.1	--	8.0	7.0
TOTAL	100	100	100	100	100	100	100	100	100	100

TOTALS

	Toronto	Other-Ontario	Ontario	Canada
0	.4	.5	.4	1
1	34.8	39.4	36.8	47
2	26.4	24.5	25.6	25
3	15.2	15.4	15.3	14
4	13.3	11.5	12.5	13
No Answer	9.9	8.7	9.4	--
TOTAL	100	100	100	100

Source: Canada data are from Three Years in Canada, p. 40; other data are from special tabulations.

TABLE 38

Number of Full-Time Jobs by Years of Schooling in Canada, During First Three Years
(Percentages)

Number of Jobs	G R A D E S 1 - 8				G R A D E S 9 - 1 3				G R A D E 1 4 A N D O V E R			
	Toronto	Other-Ontario	Ontario	Canada	Toronto	Other-Ontario	Ontario	Canada	Toronto	Other-Ontario	Ontario	Canada
0	0.3	0.8	0.6	--	0.5	0.3	0.4	--	0.5	0.3	0.4	1
1	28.3	32.	30.	39	35.2	34.9	35.1	45	43.6	57.3	49.8	59
2	23.5	23.4	23.5	25	22.7	25.4	26.8	26	27.4	24.5	26.1	24
3	17.8	15.4	16.7	17	14.1	19.0	16.1	15	13.7	9.4	11.7	10
4	14.8	13.1	13.8	19	14.3	13.9	14.1	14	9.7	5.4	7.7	6
No Answer	15.7	15.4	15.6	--	8.3	6.5	7.6	--	5.2	3.1	4.3	--
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

Source: Canada data are from Three Years in Canada, p. 40; other data are from special tabulations.

percentage between these two levels of schooling. Once again, at all levels of schooling, Ontario's immigrants are more likely to have held more than one job over the three year period than those in the Canada-wide group, once again attesting to the greater labour market adjustments available to Ontario. Table 7A.2 in the appendix presents job mobility by occupation and once again the pattern repeats: greater mobility in all occupations in Ontario than for Canada as a whole.

Participation in the Labour Force

Three Years in Canada makes only scant reference to participation rates of the immigrant population, but this aspect of labour markets requires a brief glance. As a comparison group, the participation rate in 1971 for all labour in Ontario was 62%, for males it was 80.2%, and for females it was 44.2% (Census of Canada, 1971, 94-703, pp. 5-7). For urban centres with one-half million or more people in Ontario, the total participation rate was 65.6%, the male rate was 82.5%, and the female rate was 49.7% (Census of Canada, 1971, 94-703, pp. 5-7), or slightly higher than for the province as a whole.

Table 39 presents the immigrants' participation rates by birthplace and sex. Looking first at the totals by sex, both sexes have a slightly higher rate than the Ontario figures mentioned above; therefore immigrants have a bit higher participation rates than the Canadian born. Looking at the totals by birthplace, immigrants from the U.S., the U.K., and Eastern Europe have participation rates lower than both the average for immigrants and for Ontario as a whole; high participation rates are associated with Asia, Africa, and Latin America. The pattern for male immigrants is about the same, except that Southern, Northern, and Western Europeans surpass the rates for Asia, Africa, and Latin America. The range for females is much greater with 37% of those born in the U.S.

TABLE 39

Participation Rate by Birthplace, Ontario, 1971

Origin	Male	Female	Total
U.S.A.	76.449	37.226	53.827
U.K.	75.579	40.162	56.500
Northern & Western Europe	85.776	46.597	66.532
Southern Europe	87.177	46.241	68.182
Eastern Europe	77.123	42.245	60.960
Asia	84.256	54.302	70.024
Africa	84.262	53.652	69.984
Latin America	85.077	55.136	69.289
All Others	86.227	68.682	76.774
TOTAL	81.458	44.490	62.938

Source: Special Census Tabulation.

and 55% of those born in Latin America in the labour force. It is here that those from Asia, Africa, and Latin America show greater rates than the continental European. Again, female immigrants from the U.S., the U.K., and Eastern Europe have lower participation rates than the Ontario-wide rate while the other birthplaces have higher rates.

Table 40 gives participation rates by period of immigration for each birthplace. Looking at the totals for post-1945 only, it is not generally true that the participation rate rises with periods of immigration approaching the more recent; only the female totals show a trend in this direction, although the lowest participation rate is for those who migrated 1961 to 1964. For the males, only those from the U.S. have a higher rate for 1969-1971 than for 1946-1955; for females, only those from Africa have a lower rate for 1969-1971 than for 1946-1955. Therefore, for male immigrants their rate is not appreciably affected by time spent in Ontario, while for females, their rate falls with time spent in Ontario.

Income

Earlier in this section the immigrant was classified into three occupational groupings: occupation not arranged but in demand, occupation arranged, and no occupational demand. Then unemployment was the aspect of labour under discussion; the other side of the issue is of course differences in income profiles.

Table 41 indicates that those immigrants with occupations in demand have almost always higher earnings than those with occupations not in demand. The exception is the Toronto sample after six months where those with no occupational demand have slightly higher earnings than those with occupation not arranged but in demand. In Ontario, the earnings difference between no occupational demand and occupation not

TABLE 40

Participation Rate by Birthplace by Period of
Immigration, Ontario, 1971

	Time Period	Before 1946	1946- 1955	1956- 1960	1961- 1964	1965- 1968	1969- 1971	Total
MALE	U.S.A.	71.844	78.526	74.563	77.858	83.235	83.985	76.449
	U.K.	52.201	92.024	87.787	89.634	92.229	92.246	75.578
	N. & W. Europe	48.871	92.415	89.688	91.425	92.582	91.643	85.776
	South Europe	51.112	91.406	88.894	89.736	89.791	85.201	87.177
	East Europe	53.097	88.581	88.756	84.351	90.181	81.818	77.123
	Asia	48.968	92.414	86.298	88.817	90.245	85.121	84.256
	Africa	59.201	87.500	87.570	85.340	87.389	82.671	84.426
	Latin America	69.565	88.888	84.177	79.213	87.945	85.850	85.077
	All Other	61.111	90.829	88.127	87.500	90.113	83.466	86.227
	Total	53.859	90.962	88.397	88.698	90.334	86.173	81.458
FEMALE	U.S.A.	30.923	45.375	39.586	36.642	44.903	47.521	37.226
	U.K.	20.522	52.646	54.571	53.474	59.101	61.307	40.162
	N. & W. Europe	23.605	50.121	49.858	45.782	50.934	59.954	46.597
	South Europe	25.888	46.400	46.901	45.349	54.471	50.585	46.241
	East Europe	26.136	48.690	52.546	48.642	58.215	52.830	42.245
	Asia	29.565	47.186	52.759	50.955	60.461	57.821	54.302
	Africa	32.291	56.934	54.545	55.497	56.000	54.852	53.652
	Latin America	37.500	53.191	54.545	55.364	58.009	56.797	55.136
	All Other	37.804	57.530	62.265	72.820	74.102	69.648	68.682
	Total	22.451	49.862	50.483	48.863	55.996	57.257	44.490
TOTAL	U.S.A.	47.247	59.593	54.614	54.244	62.229	65.002	53.827
	U.K.	34.473	71.142	70.487	70.236	75.389	75.982	56.500
	N. & W. Europe	36.475	72.153	69.935	66.386	71.730	74.177	66.532
	South Europe	39.051	73.126	68.709	67.353	71.223	67.913	68.782
	East Europe	40.084	71.507	71.859	63.987	74.100	67.220	60.960
	Asia	41.449	73.836	68.675	69.914	75.827	71.531	70.024
	Africa	44.186	73.770	72.507	69.973	73.155	69.649	69.984
	Latin America	52.083	71.164	67.696	65.936	72.072	71.037	69.289
	All Other	48.596	75.406	74.890	78.832	81.431	75.974	76.774
	Total	36.675	71.725	69.569	67.642	73.338	71.280	62.938

Source: Special Census Tabulation.

TABLE 41

Average Earnings of Immigrants by Occupational Demand
(Average Monthly Earnings)

	Toronto	Other-Ontario	Ontario	Canada
<u>After Six Months:</u>				
Occupation Not Arranged	\$433.95	\$460.56	\$443.99	\$487
Occupation Arranged	676.56	715.37	699.71	720
No Occupation Demand	438.55	417.06	428.86	359
<u>After One Year:</u>				
Occupation Not Arranged	485.31	516.80	496.99	522
Occupation Arranged	729.82	753.99	744.53	780
No Occupation Demand	464.53	483.97	473.23	378
<u>After Two Years:</u>				
Occupation Not Arranged	610.11	647.16	624.06	603
Occupation Arranged	873.54	911.17	896.80	887
No Occupation Demand	582.88	587.30	584.86	457
<u>After Three Years:</u>				
Occupation Not Arranged	740.79	772.59	753.01	703
Occupation Arranged	980.95	1014.74	1001.89	993
No Occupation Demand	730.79	712.79	722.75	585

Source: Canada data are from Three Years in Canada, p. 53;
other data are from special tabulations.

arranged but in demand is not greater, and it is certainly smaller than the same gap at the Canada-wide level. This is generally due to the smaller gap for the Toronto sample where it matters least if the occupation is in demand. As in the case of Canada, whether the job is arranged or not makes a difference to earnings in Ontario.

After six months and one year, immigrants in Ontario who are in occupations in demand have lower earnings than the average for the Canada-wide sample; after two years and beyond these groups in Ontario catch up and surpass the Canada sample group. Growth rates of average earnings are greater in Ontario for immigrants than in the rest of Canada; since some immigrants initially live in other provinces and then move to Ontario, perhaps attracted by this higher growth rate, this attests to the vitality of labour demand in Ontario. One caveat needs to be added; for the Toronto sample with occupation arranged, their earnings even after three years are still below the Canada-wide sample, although the gap between the two closed since after six months. Immigrants with no occupation demand had higher earnings in all four time periods in Ontario than the rest of Canada.

When earnings are controlled for age (Table 42), the Canadian-born control group has higher earnings in all age groups except those under twenty years of age. After two years, the Ontario immigrant has higher earnings than the Canada-wide immigrant sample in the younger age groups of 15-19 to 30-34 while the reverse is true for the older age groups; after three years, the Ontario group improves further so that they have higher earnings in age groups 15-19 to 40-44 than the Canada-wide sample. There are a couple of exceptions, but generally the rest of Ontario has higher earnings than Toronto; the cause is speculative but it may be the attraction of immigrants to Toronto which leaves a

TABLE 42
Average Annual Earnings for Different Age Groups
(1971 and 1972)

Age Groups	E N D O F Y E A R 2					E N D O F Y E A R 3				
	Toronto	Other-Ontario	Ontario	Canada	Control	Toronto	Other-Ontario	Ontario	Canada	Control
15 - 19	\$4642	\$4598	\$4621	\$4150	\$3530	\$5291	\$6938	\$6143	\$4949	\$4989
20 - 24	6060	6204	6117	5856	6412	7245	7611	7392	6962	7574
25 - 29	7623	7602	7615	7267	8302	8768	9191	8938	8218	9135
30 - 34	7779	9351	8478	7990	9364	9333	10429	9834	8700	10129
35 - 39	7937	9908	8951	9640	9740	8918	9836	9382	9380	10900
40 - 44	9224	9215	9220	9530	10628	10386	11194	10757	10463	11848
45 - 49	6885	8108	7445	8199	9754	7430	9370	8426	9742	11837
50 and over				8236	8949				9591	10597
50 - 54	7169	10736	8952			9077	12372	10908		
55 - 59	4401	5801	5038			5910	7340	6512		
60 - 64	6960	8550	7556			2913	11537	7225		
65+	0	0	0			0	0	0		
All Groups				7496	8500				8293	9607

Source: Canada and control data are from Three Years in Canada, p. 54; other data are from special tabulations.

supply void in the rest of the province. Especially after three years, immigrants in the rest of Ontario have some ages with higher earnings than the control group, namely 15-19, 20-24, 25-29, 30-34.

Earnings by birthplace have been examined elsewhere and at that time substantial differences were noted. Table 43 shows family income by country after one, two, and three years. Except for the French, Australiasians, and West Indians, the Toronto group have higher incomes than the Canada-wide sample after one year; after three years, only the French in this group have lower incomes than the Canada-wide sample, but those from Yugoslavia also have slightly lower incomes. Comparing Toronto and the rest of Ontario, no consistent pattern emerges for any one time period, but across time periods there is consistency in that if Toronto is higher after one year it is also higher after three years; two exceptions are those from Portugal and those from the West Indies where Toronto is lower after one year and higher after three years. While Ontario is almost always higher for every time period than Canada, except for the French, the gap widens between after one year and after three years. This ties in with the faster growth rates of earnings noted earlier. So in terms of incomes, earnings, and their growth rates, Ontario is the place to be.

TABLE 43

Total Family Income 1970-72 For Immigrants from Selected Countries of Last Permanent Residence

Country	END OF FIRST YEAR (1970)				END OF SECOND YEAR (1971)				END OF THIRD YEAR (1972)			
	Toronto	Oth-Ontario	Ontario	Canada	Toronto	Oth-Ontario	Ontario	Canada	Toronto	Oth-Ontario	Ontario	Canada
Britain	9300	8829	9070	8944	11502	11135	11322	10975	13399	13071	13237	12237
France	6069	6291	6180	7048	7720	13166	9762	10254	9155	10804	10144	10254
Germany	7892	6045	7067	6446	11476	8029	9999	9229	13788	9533	11927	9396
Greece	4141	3107	3860	3761	6939	6369	6777	5767	7905	7615	7815	6457
Italy	4795	4967	4880	3923	6895	7430	7178	5316	8126	9480	8845	6457
Portugal	5422	5559	5468	5394	8390	8086	8272	7287	9783	9605	9714	8125
Yugoslavia	4429	4916	4735	3853	7472	7999	7815	6600	8564	9468	9134	8597
Hong Kong & Taiwan	5821	5470	5736	4346	8469	7258	8178	6243	10347	9538	10141	6758
India	4883	6200	6017	5372	8622	9452	8963	7603	10592	11254	10874	9056
Philippines	5393	4382	5066	4746	7848	6962	7564	6390	9310	8926	9190	7564
Australasia	9390	11448	10232	10031	12362	15620	13554	12038	14285	17862	15748	13992
U.S.A.	11628	12253	11993	11172	13986	13951	13966	13228	15167	15974	15639	13992
West Indies	4795	5483	4992	4924	7176	7992	7405	6742	8667	8606	8648	7510
Other	6040	6606	6299	5701	8877	9426	9128	7994	10403	11110	10728	9454

Source: Canada data are from Three Years in Canada, p. 56; other data are from special tabulations.

TABLE 7A.1

Occupational Distribution of Immigrants by Years of Schooling
(Percentage Distribution)

	Toronto			Other - Ontario			Ontario			Canada		
	1-8 Yrs.	9-13 Yrs.	14 Yrs.+	1-8 Yrs.	9-13 Yrs.	14 Yrs.+	1-8 Yrs.	9-13 Yrs.	14 Yrs.+	1-8 Yrs.	9-13 Yrs.	14 Yrs.+
	After 1 Year											
Managerial, Prof. & Technical	2.3	26.2	63.2		24.1	75.4	2.	24.8	68.8	5	32	81
Clerical & Sales	6.3	26.2	18.7	3.4	17.2	9.2	5	22.5	14.3	6	20	8
Service & Recreation	20.4	7.9	4.2	15.0	11.1	3.5	18.0	9.2	3.9	18	10	4
Trans. Com.	.5	2.1	.2	.4	2.2	.3	.5	2.1	.3			
Farmers	.9	.6		4.1	2.	.6	2.3	1.2	.3			
Loggers	.2	.1					.1	.1				
Fish Trap, Hn.	.2						.1					
Miners	.2	.3		.9	.5		.5	.4				
Craftsmen	34.7	24.6	6.4	37.3	29.7	5.5	35.9	26.7	6.0	51	30	5
Laborers	15.	3.	1.5	20.8	5.0	1.2	17.7	3.8	1.3			
All Others										20	8	2
Not Stated	19.3	9.0	5.9	16.5	8.6	4.3	18.0	8.8	5.2	(13)	(8)	(4)
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100
	After 3 Years											
Managerial, Prof. & Technical	6.2	30.2	67.3	8.5	28.6	76.5	7.2	29.5	71.5	6	37	83
Clerical & Sales	5.6	16.9	6.8	1.9	16.9	6.8	3.9	21.2	11.3	6	20	9
Service & Recreation	12.6	5.9	2.5	9.9	7.4	1.5	11.4	6.5	2.0	18	9	2
Trans. Com.	.9	2.4		1.6	2.5		1.2	2.5				
Farmers	.8	.5		1.4	1.4	.6	1	.8	.3			
Loggers	.2						.1					
Fish Trap, Hn.	.2						.1					
Miners	.2	.2		.2	.3		.2	.3				
Craftsmen	28.5	21.3	4.5	30.5	25.4	6.2	29.4	23	5.3	55	26	4
Laborers	8.1	1.9	.3	11.7	2.7	.3	9.7	2.2	.3	15	8	2
All Others												
Not Stated	36.8	13.3	10.3	34.4	14.7	8.2	35.7	13.9	9.3	(38)	(22)	(19)
TOTAL	100	92.6	91.7	100	100	100	100	100	100	100	100	100

Source: Canada data are from Three Years in Canada, p. 31; other data are from special tabulations.

Number of Full-Time Jobs, by Occupation, at the End of the Third Year after Arrival
(Percentages)

Number of Jobs	T O R O N T O					O T H E R - O N T A R I O						
	Man., Prof. & Technical	Clerical & Sales	Service & Recreation	Craftsmen	Not Stated	Other	Man., Prof. & Technical	Clerical & Sales	Service & Recreation	Craftsmen	Not Stated	Other
0	.2	1.4		0.3	0.6				1.1	0.3	0.8	
1	44.	35.6	26.6	32.4	29.	30.6	48.	39.7	29.	27.5	33.1	31.2
2	26.7	29.1	29.7	23.5	26.4	24.5	23.1	22.9	19.4	28.5	24.4	27.5
3	14.3	16.1	20.3	14.6	14.8	18.4	8.8	17.6	21.5	19.7	17.7	21.1
4	9.4	10.3	10.2	21.8	12.2	16.3	5.8	12.2	11.8	16.1	11.7	11.9
No Answer	<u>5.4</u>	<u>7.5</u>	<u>13.3</u>	<u>7.4</u>	<u>17.</u>	<u>10.2</u>	<u>4.3</u>	<u>7.6</u>	<u>17.2</u>	<u>7.9</u>	<u>12.4</u>	<u>8.3</u>
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100
C A N A D A												
0	0.1	0.9	0.5	0.3	0.6			1			1	
1	50.4	36.9	27.6	30.1	30.7	30.9	63	46	40	36	40	29
2	25.1	27.2	25.3	25.8	25.6	26.1	21	26	22	27	29	32
3	11.8	16.5	20.8	17.0	16.0	19.8	10	13	22	16	15	21
4	7.7	10.9	10.9	19.1	12.0	14.0	6	14	16	21	15	18
No Answer	<u>4.9</u>	<u>7.6</u>	<u>14.</u>	<u>7.6</u>	<u>15.0</u>	<u>9.2</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

Source: Canada data are from Three Years in Canada, p. 41; other data are from special tabulations.

Chapter VIII

Immigration and Education

Introduction

While many issues could be addressed under this heading, only one will be investigated here, namely the usage which immigrants make of Ontario's elementary, secondary, college, and university facilities. The rest of this chapter looks at the propensity of certain individuals in elementary and secondary school to take the "academic" stream as opposed to other streams and enrollment by discipline or subject matter by birthplace at colleges and universities. While the direct costs of facilities in each case is not measured, the results imply that resource allocation and other costs are affected by the backgrounds of immigrants. Reference to these factors will be noted below as they arise.

Elementary and Secondary Education

In May 1970, the Board of Education for the City of Toronto undertook a survey of all students in that board with respect to some socioeconomic characteristics, and then matched up these with the class in which each student was enrolled (so-called Every Student Survey). Since the birthplace of students was asked as one of the questions, it is possible to determine the propensity of the Canadian born and the foreign born student to be found in certain programmes within the school's structure. Details of the survey are not presented here as they are available in published form from the Research Department of the Board (Wright, #91). The data of this survey are used here to extend the findings of E.N. Wright in the areas of usage (see Wright, #91 and #99, and Wright and McLeod, #98).

Wright used four categories to describe the "immigrant" status of students:

- 1) students born in Canada, English their first language;
- 2) students born in Canada, English not their first language;
- 3) students not born in Canada, English their first language;
- 4) students not born in Canada, English not their first language (Wright, #91, p. 16).

This breakdown allows a comparison by Canadian-foreign birthplace and by English is-is not the student's first language or mother tongue. Wright then compares all four categories to see if, for example, group #4 have a greater propensity to be found in special programmes as opposed to regular grades at the elementary school level.

While birthplace and mother tongue may influence a student's placement in the educational system, the present study adds a further dimension to students not born in Canada. Groups #3 and #4 are further subdivided using an index of human resource development found in Higgins (Higgins, p. 22); this index groups countries into three categories, namely underdeveloped and partially developed, semi-developed, and advanced (see appendix for complete list). Students are then grouped according to which country they were born in; in the tables used in this study, there are eight categories of "immigrant" status:

- 1) students born in Canada, English their first language;
- 2) students born in Canada, English not their first language;
- 31) students not born in Canada from underdeveloped or partially developed countries, English their first language;
- 32) students not born in Canada from semi-developed countries, English their first language;
- 33) students not born in Canada from advanced countries, English their first language;
- 41) students not born in Canada from underdeveloped or partially developed countries, English not their first language;
- 42) students not born in Canada from semi-developed countries, English not their first language;

- 43) students not born in Canada from advanced countries, English not their first language.

It is hypothesized that country of birth or developmental background makes a difference to a student or his parents likely choice of schooling stream; it may be hypothesized that students not born in Canada from underdeveloped or partially developed countries are more likely to be found in the so-called special programmes and non-arts and science streams than students not born in Canada from advanced countries regardless of whether English is the mother tongue. While Wright may not be concerned with this aspect of his data, a study of the Green Paper's implications must be since the Paper writes of quotas on immigrants; the quotas could well be by country, and if so, they could be directed at the categories of development used here. The impact on the educational system will vary according to whether quotas are on advanced countries or on underdeveloped countries if hypotheses like the one above are not disproven.

Students are grouped into five classes at the elementary school level:

- 1) junior kindergarten
- 2) senior kindergarten
- 3) grades one to 8
- 4) special class A - junior, intermediate, and non-graded opportunity classes; orthopaedic opportunity classes; pre-vocational classes; academic-vocational classes
- 5) special class B - includes Metropolitan School for the Deaf, rehabilitation classes, hospital classes, limited vision, etc.

Students are grouped into eight programmes at the secondary school level:

- 1) special vocational classes
- 2) 2 and 3 year programme
- 3) 4 year arts and science (A & S)

- 4) 4 year commerce (B & C)
- 5) 4 year technical (St & T)
- 6) 5 year arts and science
- 7) 5 year commerce
- 8) 5 year technical

The last six programmes expand Wright's work in that he grouped all four year programmes together and all five year programmes together; however, with the extended grouping used here, some of the cell sizes are small.

To start, Table 44 breaks down each background category into the percentages in each class except kindergarten classes. Wright found that the students born in Canada, English not their mother tongue, had about the same percentage in grades one to eight as students not born in Canada, English their first language, and that these two student groups had the highest percentages in this class group; in his study, students born in Canada, English their first language, had the lowest percentage in grades one to eight (Wright, #91, p. 24). Table 44 illustrates that the pattern is more complex than he suggests. First, not being born in Canada is not a deterrent to being in grades one to eight since group 33 (not born in Canada from an advanced country, English their first language) and group 43 (not born in Canada from an advanced country, English not their first language) have the highest percentages in grades one to eight. Then, for students not born in Canada, those born in advanced countries, whether English is their first language or not, have a greater propensity for grades one to eight than those born in semi-developed or partially developed countries: group 33 vs. groups 31 and 32, and group 43 vs. groups 41 and 42. It is not uniformly true that students born in Canada, English not their first language, have the same percentage in grades one to eight as students not born in Canada,

TABLE 44

Special Classes Attended by Elementary School Students by
Birthplace, Mother Tongue, and Developmental Background (%)

Background Code	Grade 1-8	Special Class A	Special Class B	Total
1	93.75	3.95	2.31	100.00
2	96.49	2.34	1.17	100.00
31	93.27	5.46	1.27	100.00
32	95.63	2.19	2.19	100.00
33	96.50	1.72	1.78	100.00
41	91.30	1.34	7.63	100.00
42	88.54	4.55	6.91	100.00
43	96.59	3.57	1.80	100.00
Total	93.59	3.57	2.84	100.00

Source: Special tabulations from Every Student Survey.

English their first language; it depends on developmental background or country of birth; of the latter group of students, only those from advanced countries have as high percentages as the Canadian born, English not their first language. Differences in mother tongue show most clearly for students born in the semi-developed countries; there is a spread of 7% between those with English as their first language and those with some other language as their first language. Wright's data do not show up this striking difference.

For the special classes there is also a wide divergence of pattern. The two immigrant groups from advanced countries (group 33 and 43) have low percentages for both special classes; once again, for the advanced countries, mother tongue does not make any difference. For those not born in Canada, English their first language, there is a declining percentage from those born in partially developed countries through to those born in advanced countries, while for those foreign born, English not their first language, students born in semi-developed countries are more likely to be found in special classes than those born in partially and underdeveloped countries. Finally, while most backgrounds have about the same or lower percentages in special class B than in special class A, group 41 (immigrant students from underdeveloped countries, English not their first language) is a noted exception.

A general conclusion is that mother tongue is unimportant for immigrant children from advanced countries, but it is for those from other countries, i.e., having English as a first language raises the likelihood of being in grades one to eight.

Table 45 divides the various background codes into the eight secondary school programmes. Consistent with Wright's findings, students born in Canada, English not their first language, are most likely

TABLE 45
Programmes Attended by Secondary School Students by Birthplace,
Mother Tongue, and Developmental Background (%)

Background Code	Special Vocational	2 & 3 Year	4 Year A & S	4 Year B & C	4 Year St & T	5 Year A & S	5 Year B & C	5 Year St & T	Total
1	6.47	8.16	3.34	11.06	13.61	46.58	5.70	5.09	100.00
2	3.99	4.32	3.48	8.70	8.18	56.29	7.99	7.04	100.00
31	9.92	13.39	3.80	8.93	11.07	38.84	7.60	6.45	100.00
32	4.40	10.00	4.80	13.60	26.00	24.80	6.80	9.60	100.00
33	2.75	4.22	4.49	10.08	15.67	49.77	5.41	7.61	100.00
41	3.20	5.65	1.51	8.85	11.68	49.44	9.89	9.79	100.00
42	10.49	14.98	2.02	12.73	15.95	26.18	8.58	9.08	100.00
43	2.18	5.09	3.27	7.54	12.44	52.59	6.72	10.17	100.00
Total	6.62	8.84	3.11	10.74	13.21	44.09	6.80	6.59	100.00

Source: Special tabulations from Every Student Survey.

to be found in the 5 years arts and science programme; however, unlike his conclusion, this group is not the least likely to be in the special vocational or 2 and 3 year programmes (Wright, #91, p. 24). He did not have the advantage of subdividing the foreign born by country of developmental background. Students from advanced countries (groups 33 and 43) have the lowest percentages for the special vocational programme, and students born outside Canada from advanced countries, English their first language (Group 33) have a lower percentage in the 2 and 3 year programme than group 2. While Wright believes that groups 1 and 3 (composite of groups 31, 32, and 33) are similar (Wright, #91, p. 24), Table 45 shows that the latter group exhibits significant internal differences. For most programmes, only the foreign born from advanced countries, group 33, are similar to the Canadian born; those from the underdeveloped countries are much more likely to be in the special vocational programme or the 2 and 3 year programme than group 1; and students from semi-developed countries have higher percentages in the 4 year technical, 5 year technical, and a lower percentage in the 5 year arts and science than the Canadian born. Along the same lines, Wright's conclusion that non-English first language immigrants are most likely to be in the special or 2 and 3 year programmes is only true because he does not control for development standards. Table 45 shows clearly that this statement is only true of students from semi-developed countries; groups 41 and 43 compare quite favourably with all other groups. Students from the semi-developed countries, whether English is their first language or not, have relatively low percentages in the 5 year arts and science programme; the group with English as a first language is oriented towards the technical programmes while the group with

English not a first language has higher percentages in the special vocational and 2 and 3 year programmes.

Each of the elementary and secondary groupings are also analyzed by dividing each background code into male and female subsectors. Appendix tables 8A.1 and 8A.2 present the results for the interested reader.

The relationship between programme and age on arrival in Canada is now investigated. Table 46 presents data by sex and developmental background for foreign born students, English the first language; Table 47 shows the same relationships for foreign born students, English not their first language. Wright found that males over 16 and under 6 on arrival were the most likely to be found in the 5 year programmes (Wright, #91, p. 31). Table 46 indicates that this is true for the 5 year arts and science programme for students from underdeveloped and advanced countries, but not for students from the semi-developed countries. The two other 5 year programmes do not lend themselves easily to generalization. For females, Wright discovered that the largest percentage in the 5 year programmes occurred in the 7 to 11 age on arrival group, with the 16 and over having the lowest percentage (Wright, #91, p. 31). Table 46 shows that none of the developmental groups conforms to his pattern in the 5 years arts and science programme; Wright's findings come mainly from the 5 year commerce programme. In the 5 year arts and science programme, female students from underdeveloped countries follow closely the pattern set by the males from the same countries.

For the special vocational programmes, ages 7 to 11 on arrival generally have the greatest likelihood of being in this programme; the one exception is males from underdeveloped countries. The 2 and 3 year

TABLE 46

Programmes Attended by Secondary School Students Not Born in Canada
For Whom English was the Mother Tongue by Age on Arrival,
Sex, and Developmental Background (%)

Background Code	Special Vocational	2 & 3 Year	4 Year A & S	4 Year B & C	4 Year St & T	5 Year A & S	5 Year B & C	5 Year St & T	Total
31 - Male:									
1 - 6	.00	7.14	3.57	10.71	14.29	46.43	3.57	14.29	100.00
7 - 11	11.11	13.33	.00	4.44	11.11	31.11	.00	28.89	100.00
12 - 15	19.88	13.66	4.35	2.48	16.77	31.68	3.11	8.07	100.00
16+	3.66	13.41	7.32	.00	19.51	48.78	1.22	6.10	100.00
31 - Female:									
1 - 6	4.35	8.70	.00	17.39	4.35	52.17	13.04	.00	100.00
7 - 11	10.34	3.45	6.90	6.90	10.34	37.93	24.14	.00	100.00
12 - 15	9.32	13.04	1.86	17.39	3.11	38.51	16.15	.62	100.00
16+	.00	23.08	4.62	13.85	6.15	44.62	4.62	3.08	100.00
32 - Male:									
1 - 6	4.65	15.12	6.98	2.33	26.75	26.74	5.81	11.63	100.00
7 - 11	7.55	3.77	3.77	3.77	43.40	20.75	.00	16.98	100.00
12 - 15	3.13	6.25	.00	3.13	40.62	34.37	3.13	9.38	100.00
16+	.00	.00	20.00	.00	40.00	40.00	.00	.00	100.00
32 - Female:									
1 - 6	.00	5.26	5.26	47.37	7.89	18.42	13.16	2.63	100.00
7 - 11	14.29	14.29	.00	35.71	7.14	.00	21.43	7.14	100.00
12 - 15	.00	15.00	5.00	30.00	.00	35.00	15.00	.00	100.00
16+	.00	50.00	.00	.00	.00	50.00	.00	.00	100.00
33 - Male:									
1 - 6	2.80	3.82	4.07	3.82	21.37	50.13	3.31	10.69	100.00
7 - 11	5.41	5.41	5.41	3.60	27.93	33.33	4.50	14.41	100.00
12 - 15	1.18	5.88	3.53	3.53	24.71	38.82	4.71	17.65	100.00
16+	.00	.00	5.88	.00	5.88	52.94	.00	35.29	100.00
33 - Female:									
1 - 6	1.66	3.32	6.64	20.27	6.31	52.16	8.97	.66	100.00
7 - 11	5.68	3.41	1.14	14.77	6.82	61.36	6.82	.00	100.00
12 - 15	1.56	4.69	3.13	20.31	7.81	57.81	4.69	.00	100.00
16+	.00	.00	.00	.00	.00	100.00	.00	.00	100.00

Source: Special tabulations from Every Student Survey.

programme is quite different. Males from underdeveloped countries show little variation after the one to six age on arrival; those from semi-developed countries peak during the 1 to 6 age on arrival; and male students from advanced countries have the highest percentages in the 7 to 11 and 12 to 15 ages on arrival. For females in the 2 and 3 year programme, Wright found a decided increase in the percentage between the 7 to 11 and 12 to 15 group; Table 46 shows that this happens only for females from the underdeveloped countries. The effect is more isolated than Wright would have us believe.

Table 47 looks at students for whom English is not their first language. In the 5 year arts and science programme, the males from underdeveloped countries exhibit a pattern similar to Table 46, while males from other countries do not. All female groups in Table 47 have the highest percentages in the 5 year arts and science programme in the over 16 or under 6 ages on arrival, which again differs from Table 46. So for the 5 year arts and science programme, first language affects the pattern by country of birth. Except for females from advanced countries, it is generally true that for all ages on arrival students for whom English is not their mother tongue are more likely to be in the 5 year arts and science programme than students for whom English is their first language.

As for the special vocational programme, students whose first language is not English exhibit exactly the same pattern as Table 46, namely the highest percentages occur in the 7 to 11 age on arrival with the exception of males from underdeveloped countries. In terms of the 2 and 3 year programme, there is hardly any similarity between Tables 46 and 47. For females, students from semi-developed and advanced countries show a discontinuity between the arrival ages 7 to 11 and 12 to

TABLE 47

Programmes Attended by Secondary School Students Not Born in Canada
For Whom English was Not the Mother Tongue by Age on
Arrival, Sex, and Developmental Background (%)

Background Code	Special Vocational	2 & 3 Year	4 Year A & S	4 Year B & C	4 Year St & T	5 Year A & S	5 Year B & C	5 Year St & T	Total
41 - Male:									
1 - 6	5.43	3.10	.78	2.33	14.73	52.71	3.10	17.83	100.00
7 - 11	4.62	5.38	1.54	1.54	17.69	46.92	3.08	19.23	100.00
12 - 15	2.91	8.74	.97	.97	26.21	39.81	1.46	18.93	100.00
16+	.00	.69	.69	1.38	15.17	68.97	2.76	10.34	100.00
41 - Female:									
1 - 6	1.35	2.70	4.50	13.51	1.35	56.76	20.27	.00	100.00
7 - 11	6.54	6.54	.93	16.82	.00	43.93	25.23	.00	100.00
12 - 15	2.70	7.03	2.16	20.54	1.62	43.24	22.70	.00	100.00
16+	2.67	6.67	2.67	24.00	.00	54.67	8.00	1.33	100.00
42 - Male:									
1 - 6	7.60	8.89	3.40	3.31	24.09	32.66	3.31	16.73	100.00
7 - 11	16.44	12.93	1.65	2.38	22.75	22.03	3.10	18.72	100.00
12 - 15	8.21	22.23	1.03	3.53	32.16	19.84	1.48	11.52	100.00
16+	1.90	5.06	3.80	1.90	38.61	39.87	1.27	7.59	100.00
42 - Female:									
1 - 6	7.59	4.85	1.90	29.93	2.32	30.24	22.34	.84	100.00
7 - 11	19.40	17.55	1.57	21.54	1.43	21.11	16.83	.57	100.00
12 - 15	7.32	30.34	1.79	25.56	1.94	22.57	9.87	.60	100.00
16+	1.14	10.23	.00	25.00	3.41	54.55	3.41	2.27	100.00
43 - Male:									
1 - 6	1.79	4.10	2.82	1.54	18.21	53.08	2.05	16.41	100.00
7 - 11	3.85	4.81	2.88	.96	18.27	46.15	.96	22.12	100.00
12 - 15	1.67	15.00	5.00	1.67	16.67	35.00	.00	25.00	100.00
16+	.00	8.33	8.33	.00	33.33	41.67	.00	8.33	100.00
43 - Female:									
1 - 6	2.01	2.01	2.87	14.66	4.31	58.91	13.79	1.44	100.00
7 - 11	3.26	7.61	4.35	15.22	7.61	50.00	10.87	1.09	100.00
12 - 15	1.67	15.00	5.00	15.00	8.33	45.00	10.00	.00	100.00
16+	.00	.00	.00	10.00	10.00	70.00	.00	10.00	100.00

Source: Special tabulations from Every Student Survey.

15, but this is untrue of females from underdeveloped countries. This pattern parallels exactly the situation for males in Table 47; males and females in the 2 and 3 year programme respond much the same if their first language is not English, but differently if their mother tongue is English as Table 46 illustrates.

As yet the occupation of the head of the household in which the student resides has not been related to programme or class placement; it is possible from the Every Student Survey to identify the occupation of the household head, rank the occupation according to Blishen's scale, and combine the occupation into groups according to the scale assigned (Blishen, 41-53). Table 48 presents the socio-economic codes used in this study along with the percentage of students in each category. Categories two to nine represent ascending values on Blishen's code; it may be hypothesized that as we move through these categories that the percentages of students in grades one to eight and in the 5 year arts and science programmes increases while the proportion of students in the special classes and the 2 and 3 year programme declines. The remaining categories represent "special" circumstances like welfare cases, unemployment, or student parents; it is predicted that these categories will also have a high proportion of students in special classes or the 2 and 3 year programme.

Table 49 presents results by occupation and developmental background for elementary school students. Since many cells are small in numbers, some caution must be exercised; the numbers are given. Wright found a steady decrease in the proportion of students in the Special Class A through labourers to accountants (lowest to highest on the Blishen scale) (Wright, #91, p. 34). This is apparent also from Table 49 with labourers having 3.5% and accountants having .2%. (Note that

TABLE 48

Socio-Economic Codes for Head of Household

Category Number	Blishen's Category	Description of Category	Percentage of Toronto Students
1		no information or unknown	2.86
2	25 - 31.99	labourers, truck drivers, taxi drivers, waiters and porters	42.74
3	32 - 34.99	bartenders, sheetmetal workers, mechanics and repairmen	7.68
4	35 - 38.99	sales clerks, jewellers, stationary engineers and machinists	4.97
5	39 - 42.99	pressmen, printing workers, electricians, members of the armed forces and clerical occupations	9.27
6	43 - 49.99	actors, tool and die makers, medical and dental technicians, embalmers, real estate salesmen, engravers	6.09
7	50 - 54.99	musicians, stenographers, athletes	4.35
8	55 - 65.99	clergymen, various owners and managers, insurance salesmen, librarians	4.68
9	66 - 76.99	teachers, professional engineers, physicians, lawyers, accountants, computer programmers, air pilots	8.00
10		retired, pension or on Workman's Compensation	.70
11		Welfare, Mother's Allowance	.37
12		attending university or other full-time education, including adult retraining	.64
13		unemployed	3.15
14		housewife (of relevance in single parent families)	4.40
15		student on his own, either self-supporting, on welfare, or drawing an allowance from his parents	.09

TABLE 49

Programmes Attended by Elementary School Students by Occupation
of Household Head and Developmental Background (%)

Occupation and Background Code	Grades 1-8	Special Class A	Special Class B	Junior Kindergarten	Senior Kindergarten	Total	Number
Labourers, Taxi Drivers, etc.:	78.97	3.50	2.63	4.07	10.83	100.00	32261
1	81.06	4.50	1.91	3.41	9.11	100.00	11908
2	77.83	2.07	.93	5.86	13.31	100.00	10031
31	83.46	5.17	1.29	3.10	6.98	100.00	387
32	84.42	3.90	3.90	1.30	6.49	100.00	77
33	82.64	2.45	1.89	2.26	10.75	100.00	530
41	80.72	1.11	8.18	3.61	6.38	100.00	721
42	78.70	4.31	5.86	2.05	9.08	100.00	7266
43	84.74	1.10	1.10	2.94	10.11	100.00	544
Sheetmetal Workers, Mechanics, etc.:	78.19	3.52	1.86	4.40	12.03	100.00	5544
1	80.00	3.94	1.64	3.65	10.77	100.00	2740
2	77.55	2.23	.67	5.87	13.68	100.00	1345
31	78.85	10.10	.48	3.85	6.73	100.00	208
32	86.36	.00	.00	.00	13.64	100.00	22
33	77.78	1.59	1.06	4.23	15.34	100.00	189
41	80.19	1.89	4.72	2.83	10.38	100.00	106
42	77.27	4.03	5.61	2.59	10.50	100.00	695
43	85.26	2.11	.00	2.11	10.53	100.00	95
Sales Clerks, Machinists, etc.:	80.85	2.95	1.83	3.95	10.43	100.00	3394
1	81.04	3.82	1.67	3.39	10.07	100.00	1857
2	80.66	1.52	1.17	5.74	10.90	100.00	853
31	83.05	3.39	.00	1.69	11.86	100.00	59
32	88.89	.00	.00	11.11	.00	100.00	9
33	84.96	.75	2.26	3.01	9.02	100.00	133
41	83.91	1.15	5.75	1.15	8.05	100.00	87
42	81.82	3.03	4.04	2.02	9.09	100.00	297
43	82.50	.00	2.50	2.50	12.50	100.00	40
Printing Workers, Electricians, etc.:	81.71	1.75	1.82	3.65	11.08	100.00	6390
1	82.70	1.74	1.81	3.24	10.51	100.00	4358
2	81.53	1.47	.31	4.41	12.28	100.00	953
31	79.85	4.48	2.24	2.99	10.45	100.00	134
32	89.47	.00	.00	5.26	5.26	100.00	19
33	83.17	1.44	.95	2.88	11.54	100.00	208
41	73.96	1.04	5.21	4.17	15.62	100.00	96
42	83.20	2.36	4.46	1.05	8.92	100.00	381
43	82.28	1.27	2.53	3.80	10.13	100.00	79
Dental Technicians, Embalmers, etc.:	83.36	1.66	2.10	3.53	9.34	100.00	3906
1	83.65	1.74	1.99	3.09	9.53	100.00	2361
2	84.75	1.28	1.05	4.77	8.15	100.00	859
31	87.21	2.33	.00	.00	10.47	100.00	86
32	90.00	.00	.00	.00	10.00	100.00	10
33	84.51	.70	2.11	3.52	9.15	100.00	142
41	83.82	1.47	5.88	2.94	5.88	100.00	68
42	79.15	2.98	7.23	2.55	8.09	100.00	235
43	85.48	.00	.00	3.23	11.29	100.00	62
Musicians, Athletes, etc.:	81.70	1.31	1.89	3.81	11.29	100.00	2968
1	83.88	1.41	1.97	2.25	10.48	100.00	1774
2	78.39	.72	.86	7.06	12.97	100.00	694
31	81.25	2.08	.00	4.17	12.50	100.00	48
32	83.33	.00	.00	.00	16.67	100.00	6
33	87.83	1.74	.87	3.48	6.09	100.00	115
41	87.10	1.61	1.61	4.84	4.84	100.00	62
42	80.25	2.55	5.73	3.82	7.64	100.00	157
43	75.00	2.27	6.82	2.27	13.64	100.00	44
Clergymen, Librarians, etc.:	81.40	.83	1.97	3.69	12.11	100.00	3145
1	81.79	.90	1.89	3.34	12.08	100.00	2334
2	86.67	.30	.61	3.03	9.39	100.00	330
31	84.78	2.17	2.17	.00	10.87	100.00	46
32	81.82	.00	.00	9.09	9.09	100.00	11
33	81.77	.55	2.76	1.66	13.26	100.00	181
41	85.71	.00	.00	9.52	4.76	100.00	42
42	75.49	.00	4.90	5.88	13.73	100.00	102
43	78.79	3.03	3.03	6.06	9.09	100.00	33

TABLE 49 - Cont'd.

Occupation and Background Code	Grades 1-8	Special Class A	Special Class B	Junior Kindergarten	Senior Kindergarten	Total	Number
Accountants, Engineers, Lawyers, etc.:	84.56	.20	1.02	2.38	11.85	100.00	5595
1	85.44	.24	.93	1.78	11.62	100.00	4210
2	87.57	.00	1.06	2.38	8.99	100.00	378
31	86.36	.00	1.14	1.14	11.36	100.00	88
32	79.41	.00	2.94	11.76	5.88	100.00	34
33	84.69	.00	.72	2.39	12.20	100.00	418
41	80.28	.00	1.41	4.23	14.08	100.00	71
42	78.57	.60	4.17	3.57	13.10	100.00	168
43	83.33	.00	.00	1.96	14.71	100.00	102
Retired, Workman's Compensation:	77.43	7.39	3.89	2.72	8.56	100.00	257
1	75.45	8.98	4.19	2.99	8.38	100.00	167
2	85.45	3.64	1.82	.00	9.09	100.00	55
31	100.00	.00	.00	.00	.00	100.00	2
32	--	--	--	--	--	--	0
33	60.20	20.00	20.00	.00	.00	100.00	5
41	--	--	--	--	--	--	0
42	83.33	.00	8.33	8.33	.00	100.00	12
43	100.00	.00	.00	.00	.00	100.00	2
Welfare, Mother's Allowance:	68.86	10.62	4.40	3.66	12.45	100.00	273
1	67.12	12.33	4.11	2.74	13.70	100.00	219
2	80.00	5.00	5.00	10.00	.00	100.00	20
31	--	--	--	--	--	--	0
32	--	--	--	--	--	--	0
33	66.67	.00	.00	.00	33.33	100.00	3
41	--	--	--	--	--	--	0
42	77.78	.00	11.11	.00	11.11	100.00	9
43	--	--	--	--	--	--	0
University Student, Adult Retraining:	64.79	1.45	6.35	9.62	17.79	100.00	551
1	70.61	2.19	2.63	7.02	17.54	100.00	228
2	65.71	.00	.00	20.00	14.29	100.00	35
31	64.71	.00	.00	17.65	17.65	100.00	17
32	66.67	.00	.00	.00	33.33	100.00	3
33	76.19	.00	.00	14.29	9.52	100.00	21
41	65.38	.00	7.69	11.54	15.38	100.00	52
42	62.75	.65	15.69	4.58	16.34	100.00	153
43	47.37	10.53	.00	21.05	21.05	100.00	19
Unemployed:	77.49	7.35	4.88	2.65	7.63	100.00	2150
1	78.46	9.57	4.09	2.09	5.78	100.00	1003
2	81.73	4.22	.94	4.22	8.90	100.00	427
31	76.47	2.94	.00	.00	20.59	100.00	34
32	100.00	.00	.00	.00	.00	100.00	4
33	81.30	4.35	.00	.00	4.35	100.00	23
41	77.55	2.04	12.24	2.04	6.12	100.00	49
42	76.47	.00	3.33	6.67	6.08	100.00	510
43	76.67	.00	3.33	6.67	13.33	100.00	30
Housewife:	76.64	6.39	2.91	2.93	11.13	100.00	3640
1	77.43	6.93	2.31	2.60	10.84	100.00	2913
2	82.39	3.28	2.39	2.39	9.55	100.00	335
31	81.82	9.09	4.55	.00	4.55	100.00	22
32	100.00	.00	.00	.00	.00	100.00	5
33	85.71	4.29	1.43	.00	8.57	100.00	70
41	67.57	5.41	10.81	2.70	13.51	100.00	37
42	80.00	4.38	12.50	.00	3.13	100.00	160
43	80.65	.00	9.68	3.23	6.45	100.00	31

Source: Special tabulations from Every Student Survey.

each occupational category is represented by one occupation while there are many occupations in each category.) Paralleling this is a general rise from labourers to accountants in the percentage in grades one to eight. Is this overall pattern true for all background countries? The answer is generally yes, although the pattern is less smooth for the foreign born than for the Canadian born; a glance at the accountants, lawyers, etc. shows the low proportions in the special classes irregardless of country of birthplace. For example, Table 44 indicated that 4.55% of students in group 42 were in special class A, but Table 49 shows that only .6% who have accountants, lawyers, etc. as parents are in this class.

For each occupational group, the percentages in grades one to eight for the group's total can be compared with the percentage for each developmental background. For example, for labourers the percentage for students from semi-developed countries, English not their first language (group 42) is below the percentage for the occupational group. Is this a pattern that continues throughout the categories? The answer is yes; as noted before, group 42 is less likely to be in this stream, and this applies to all occupational groups including the highest. Students from the advanced countries are not always above the occupational average; this applies to group 43 for clergymen and for accountants, and to group 33 for sheetmetal workers. Students from underdeveloped countries are generally above the percentages for each occupational category, although there are a small number of exceptions.

As hypothesized, the occupational groups starting with retired have the lowest percentages in grades one to eight. This is especially true for welfare and student parents. Students from underdeveloped countries

do not have lower percentages than students from advanced countries in these last occupational categories.

Table 50 presents the same kind of data for secondary school students. For the Canadian born, the percentage in the 5 year arts and science programme rises steadily from labourers to accountants; for foreign born students, this is only true for students from advanced countries, English as their first language. For many occupational categories, students from semi-developed countries have higher percentages in the special vocational programme than the average for the occupational category; this is especially true of students from these countries for whom English is not their first language. The consistency across occupations is interesting. In contrast, for all occupational categories, students from advanced countries, irregardless of first language, have lower percentages for this programme than the average for the category. Students from underdeveloped countries whose first language is English generally have higher percentages in the special vocational programme than the occupational category's average than the percentage for students from underdeveloped countries whose first language is not English.

The "special" categories at the end of Table 50 do not perform that badly in terms of proportions in the 5 year arts and science programme, especially the retired and student parent categories.

These remarks can not do justice to the information found in Table 49 and 50, but they do point out some broad trends which are of use to those persons interested in the variable patterns of educational use by birthplace.

This section of this chapter ends with a discussion of the probability of a student in elementary school being in special classes A or B

TABLE 50

Programmes Attended by Secondary School Students by Occupation
of Household Head and Developmental Background (%)

Occupation and Background Code	Special Vocational	2 & 3 Year	4 Year A & S	4 Year B & C	4 Year St & T	5 Year A & S	5 Year B & C	5 Year St & T	Total	Number
Labourers, Taxi Drivers, etc.:	8.89	12.47	2.77	13.04	16.20	30.42	8.45	7.77	100.00	11276
1	10.08	13.00	2.89	14.35	18.61	28.07	7.42	5.76	100.00	4008
2	5.12	4.96	3.79	9.87	9.92	49.21	9.31	7.83	100.00	1955
31	15.56	14.44	2.78	11.67	12.22	25.00	11.11	7.22	100.00	180
32	3.92	13.07	3.92	13.73	30.07	16.99	8.50	9.80	100.00	153
33	5.84	6.57	5.11	15.69	18.25	33.21	6.20	9.12	100.00	274
41	4.47	7.11	1.02	10.16	14.43	39.23	11.99	11.59	100.00	492
42	11.04	17.42	2.00	13.62	17.08	21.10	8.91	8.83	100.00	3759
43	2.42	7.47	3.74	12.09	12.31	42.86	8.13	10.99	100.00	455
Sheetmetal Workers, Mechanics, etc.:	6.41	8.33	2.49	12.57	14.62	39.70	7.72	8.16	100.00	2292
1	6.84	8.66	2.64	15.22	16.32	35.19	7.75	7.38	100.00	1097
2	2.80	4.21	1.64	8.18	9.11	57.94	8.41	7.71	100.00	428
31	12.75	14.71	4.90	9.80	15.69	28.43	8.82	4.90	100.00	102
32	10.00	10.00	10.00	10.00	15.00	25.00	.00	20.00	100.00	20
33	2.27	7.95	6.82	9.09	23.86	36.36	2.27	11.36	100.00	88
41	6.12	12.24	2.04	10.20	12.24	40.82	4.08	12.24	100.00	49
42	9.69	11.22	1.28	13.78	14.80	31.63	8.67	8.93	100.00	392
43	1.72	3.45	1.72	6.03	11.21	56.90	7.76	11.21	100.00	116
Sales Clerks, Machinists, etc.:	5.30	6.44	2.98	9.71	15.08	45.23	7.39	7.87	100.00	1678
1	5.57	7.86	3.06	10.70	17.25	43.01	7.21	5.35	100.00	916
2	2.79	2.44	2.79	7.67	8.01	59.58	6.27	10.45	100.00	287
31	8.57	8.57	.00	2.86	5.71	65.71	2.86	5.71	100.00	35
32	9.09	.00	9.09	18.18	9.09	45.45	9.09	.00	100.00	11
33	3.00	5.00	5.00	14.00	18.00	39.00	7.00	9.00	100.00	100
41	5.48	5.48	.00	6.85	12.33	43.84	12.33	13.70	100.00	73
42	9.42	7.85	3.14	9.95	16.75	32.46	7.33	13.09	100.00	191
43	1.54	3.08	3.08	3.08	15.38	50.77	12.31	10.77	100.00	65
Printing Workers, Electricians, etc.:	3.82	6.05	3.82	11.94	13.42	46.68	7.27	7.01	100.00	3040
1	4.26	6.35	3.97	12.74	14.68	44.47	6.74	6.79	100.00	2017
2	2.16	3.61	4.81	10.82	5.53	59.62	8.41	5.05	100.00	416
31	11.76	15.69	1.96	9.80	7.84	41.18	7.84	3.92	100.00	51
32	.00	.00	12.50	.00	12.50	62.50	12.50	.00	100.00	8
33	2.86	4.29	3.57	12.86	22.14	37.14	7.86	9.29	100.00	140
41	.00	9.62	.00	7.69	5.77	67.31	1.92	7.69	100.00	52
42	4.00	7.60	2.40	12.40	14.00	39.60	9.20	10.80	100.00	250
43	.94	2.83	2.83	2.83	14.15	58.49	9.43	8.49	100.00	106
Dental Technicians, Embalmers, etc.:	3.14	4.89	3.58	8.73	11.57	56.59	5.72	5.76	100.00	2290
1	2.60	4.99	3.97	10.12	11.99	56.29	5.42	4.62	100.00	1384
2	2.27	2.84	2.27	4.26	5.40	70.74	5.97	6.25	100.00	352
31	2.70	13.51	4.05	9.46	10.81	48.65	6.76	4.05	100.00	74
32	18.18	.00	9.09	18.18	36.36	18.18	.00	.00	100.00	11
33	.00	2.47	2.47	6.17	24.69	50.62	7.41	6.17	100.00	81
41	.00	1.52	4.55	7.58	12.12	62.12	7.58	4.55	100.00	66
42	9.48	5.17	1.72	9.48	12.93	42.67	8.19	10.34	100.00	232
43	2.22	8.89	6.67	4.44	11.11	54.44	.00	12.22	100.00	90
Musicians, Athletes, etc.:	1.28	3.11	4.32	7.30	9.93	61.76	4.73	7.57	100.00	1480
1	1.19	3.46	4.75	6.70	10.91	63.61	3.56	5.83	100.00	926
2	.50	1.51	4.02	4.52	8.54	67.34	5.03	8.54	100.00	199
31	.00	7.14	7.14	7.14	28.57	35.71	.00	14.29	100.00	14
32	.00	.00	11.11	22.22	11.11	44.44	.00	11.11	100.00	9
33	.00	1.54	1.54	9.23	12.31	66.15	4.62	4.62	100.00	65
41	1.22	1.22	3.66	6.10	4.88	58.84	10.98	13.41	100.00	82
42	4.26	5.67	4.26	14.89	7.09	39.72	9.93	14.18	100.00	141
43	.00	.00	.00	4.55	4.55	79.55	2.27	9.09	100.00	44

TABLE 50 - Cont'd.

203.

Occupation and Background Code	Special Vocational	2 & 3 Year	4 Year A & S	4 Year B & C	4 Year St & T	5 Year A & S	5 Year B & C	5 Year St & T	Total	Number
Clergymen, Librarians, etc.:	2.00	3.33	3.51	5.26	8.16	71.28	2.66	3.81	100.00	1654
1	2.14	3.71	3.71	5.61	8.41	69.99	2.64	3.79	100.00	1213
2	1.61	2.15	2.69	4.84	3.23	82.26	2.15	1.08	100.00	186
31	.00	7.69	7.69	3.85	11.54	69.23	.00	.00	100.00	26
32	.00	.00	.00	.00	16.67	66.67	.00	16.67	100.00	6
33	.00	.00	2.60	3.90	14.29	75.32	.00	4.55	100.00	77
41	.00	4.55	4.55	.00	9.09	77.27	.00	4.55	100.00	22
42	2.99	4.48	2.99	5.97	7.46	64.18	4.48	7.46	100.00	67
43	3.51	.00	1.75	3.51	8.77	64.91	8.77	8.77	100.00	57
Accountants, Engineers, Lawyers, etc.:	.54	1.24	2.78	2.67	3.32	85.24	1.31	2.90	100.00	2588
1	.62	.94	2.70	2.75	3.32	86.08	1.25	2.34	100.00	1925
2	.45	1.82	3.18	1.82	2.27	86.82	.00	3.64	100.00	220
31	2.38	9.52	4.76	4.76	.00	69.05	2.38	7.14	100.00	42
32	.00	.00	.00	.00	.00	100.00	.00	.00	100.00	6
33	.00	1.14	3.98	1.70	2.27	85.23	2.84	2.84	100.00	176
41	.00	.00	6.00	4.00	4.00	80.00	2.00	4.00	100.00	50
42	.00	2.61	.00	2.61	5.22	79.13	2.61	7.83	100.00	15
43	.00	1.85	1.85	3.70	9.26	77.78	.00	5.56	100.00	54
Retired, Workman's Compensation:	5.68	4.55	2.95	11.14	14.32	45.23	9.55	6.59	100.00	440
1	8.36	5.09	4.00	13.45	16.00	38.91	9.45	4.73	100.00	275
2	1.08	2.15	1.08	7.53	6.45	56.99	15.05	9.68	100.00	93
31	.00	.00	.00	.00	.00	100.00	.00	.00	100.00	2
32	.00	50.00	.00	.00	50.00	.00	.00	.00	100.00	2
33	.00	.00	16.67	33.33	.00	33.33	16.67	.00	100.00	6
41	.00	.00	.00	5.00	10.00	70.00	5.00	10.00	100.00	20
42	3.03	9.09	.00	6.06	30.30	36.36	.00	15.15	100.00	33
43	.00	.00	.00	.00	.00	100.00	.00	.00	100.00	9
Welfare, Mother's Allowance:	28.87	24.74	1.03	7.22	16.49	12.37	3.09	6.19	100.00	97
1	28.00	28.00	.00	9.33	17.33	6.67	4.00	6.67	100.00	75
2	33.33	8.33	8.33	.00	8.33	33.33	.00	8.33	100.00	12
31	--	--	--	--	--	--	--	--	--	0
32	--	--	--	--	--	--	--	--	--	0
33	--	--	--	--	--	--	--	--	--	0
41	.00	.00	.00	.00	.00	100.00	.00	.00	100.00	1
42	37.50	25.00	.00	.00	25.00	12.50	.00	.00	100.00	8
43	.00	.00	.00	.00	.00	100.00	.00	.00	100.00	1
University Student, Adult Retraining:	5.21	9.38	6.25	12.50	7.29	51.04	6.25	2.08	100.00	96
1	6.82	11.36	11.36	13.64	6.82	43.18	6.82	.00	100.00	44
2	12.50	.00	12.50	12.50	.00	62.50	.00	.00	100.00	8
31	16.67	16.67	.00	16.67	16.67	16.67	.00	16.67	100.00	6
32	.00	.00	.00	.00	.00	100.00	.00	.00	100.00	1
33	.00	.00	.00	.00	.00	80.00	.00	20.00	100.00	5
41	.00	.00	.00	.00	.00	72.73	27.27	.00	100.00	11
42	.00	18.75	.00	25.00	12.50	43.75	.00	.00	100.00	16
43	.00	.00	.00	.00	20.00	80.00	.00	.00	100.00	5
Unemployed:	21.17	13.31	1.65	14.20	13.94	20.41	8.87	6.46	100.00	789
1	27.11	14.16	1.81	16.27	12.65	15.96	7.53	4.52	100.00	332
2	13.21	9.43	.94	14.15	11.32	32.08	10.38	8.49	100.00	106
31	12.50	18.75	.00	6.25	12.50	50.00	.00	.00	100.00	16
32	.00	.00	.00	33.33	25.00	16.67	16.67	8.33	100.00	12
33	16.67	8.33	16.67	.00	8.33	16.67	16.67	16.67	100.00	12
41	3.70	.00	.00	18.52	14.81	44.44	11.11	7.41	100.00	27
42	21.24	16.99	1.16	11.58	16.22	16.22	9.27	7.34	100.00	259
43	12.00	.00	4.00	12.00	16.00	32.00	12.00	12.00	100.00	25
Housewife:	13.69	15.15	3.63	14.11	14.53	26.26	6.91	5.73	100.00	1431
1	16.31	16.84	3.20	14.18	15.03	23.24	6.61	4.58	100.00	938
2	7.55	8.96	5.66	16.51	9.91	35.85	8.02	7.55	100.00	211
31	13.33	23.33	6.67	3.33	10.00	23.33	6.67	13.33	100.00	3
32	.00	50.00	.00	.00	50.00	.00	.00	.00	100.00	.
33	12.00	4.00	12.00	12.00	12.00	36.00	4.00	8.00	100.00	21
41	1.89	7.55	.00	13.21	18.87	39.62	11.32	7.55	100.00	53
42	12.50	18.38	2.21	16.18	15.44	21.32	7.35	6.62	100.00	136
43	5.88	2.94	5.88	2.94	20.59	47.06	2.94	11.76	100.00	34

Source: Special tabulations from Every Student Survey.

and of a student in secondary school being in the special vocational or 2 and 3 year programmes. The variables that help to determine these probabilities are:

- 1) birthplace: born in an underdeveloped country (LOW 1), born in a semi-developed country (LOW 2), born in an advanced country (LOW 3), born in Canada as the control;
- 2) English first language?: No (NO), English plus another (ENGAN), deaf (DEAF), Yes as the control;
- 3) live with parents?: only mother (ONMO), only father (ONFA), neither (NEI), both as the control;
- 4) occupation of household head: bartenders, sheetmetal workers, etc. (OCC 3), sales clerks, jewellers, etc. (OCC 4), pressmen, printing workers, etc. (OCC 5), actors, tool and die makers, etc. (OCC 6), musicians, stenographers, etc. (OCC 7), clergymen, managers, etc. (OCC 8), teachers, lawyers, etc. (OCC 9), retired, pension, etc. (OCC 10), welfare, mother's allowance (OCC 11), student parent (OCC 12), unemployed (OCC 13), housewife (OCC 14), student on his own (OCC 15), labourers, truck drivers, etc. as the control.

Multiple regressions are run with these as the independent variables and the dependent variable being one if the student is in a special class or a 2 and 3 year programme and being zero elsewhere. The coefficients from the regressions represent the probabilities of being in these classes or programmes.

Table 51 presents the regression results for the full sample of Canadian and foreign born together for the elementary and secondary schools separately. Even though this table includes the variables in code form only, the full definitions may be referred to above in the listing of variables which are included in the regression analysis. Recall that the constant represents the probability of being in special class A or B for elementary school students and the probability of being in special vocational or 2 and 3 year programmes for secondary school students with the following characteristics: born in Canada, English the first language, live with both parents, head of household in la-

TABLE 51

Probability of Being in Special Class A or B, or in
Special Vocational or 2 and 3 Year Programmes,
Full Sample

Variable	Elementary		Secondary	
	Coefficient	t-value	Coefficient	t-value
LOW 1	.0321	5.95*	.0117	1.25
LOW 2	.0687	20.10*	.1053	15.51*
LOW 3	-.011	2.22*	-.0418	5.17*
NO	-.0193	6.67*	-.0444	7.00*
ENGAN	-.0316	10.16*	-.1045	17.39*
DEAF	.924	59.50*	.7537	3.80*
ONMO	.00368	.89	.0197	2.62*
ONFA	.0413	5.07*	.0283	2.14*
NEI	.101	9.14*	.1420	10.34*
OCC 3	-.00451	1.16	-.0533	6.71*
OCC 4	-.0119	2.50*	-.0804	8.85*
OCC 5	-.0270	7.32*	-.1033	14.33*
OCC 6	-.0236	5.27*	-.1239	15.38*
OCC 7	-.0275	5.35*	-.1604	16.51*
OCC 8	-.0370	7.36*	-.1530	16.52*
OCC 9	-.0521	13.25*	-.1860	23.98*
OCC 10	.0498	3.05*	-.1078	6.40*
OCC 11	.114	6.79*	.3180	9.02*
OCC 12	.0254	2.08*	-.0902	2.55*
OCC 13	.0578	10.06*	.1265	9.97*
OCC 14	.0329	5.51*	.0658	5.57*
OCC 15	--	--	-.2910	6.25
Constant	.0669		.2105	

Note: * Significant at 5% level.

bourer, truck driver, etc. occupation. While the emphasis here is on the foreign born student versus this control group, all of the coefficients and their t-values are given for interested readers. Variables LOW 1, LOW 2, and LOW 3 represent the probabilities of the foreign born as compared with the control group of Canadian born students keeping other variables constant. Compared with this control group, the probability of being in special class A or B (elementary school) is 3% higher for students from underdeveloped countries, 6% higher for students from semi-developed countries, and 1% lower for students from advanced countries. For secondary students compared to the control group, the probability of being in a special vocational or 2 and 3 year programme is the same for students from underdeveloped countries (LOW 1 is insignificant), 11% higher for students from semi-developed countries, and 4% lower for students from advanced countries. This underscores a point made before: regardless of mother tongue, students from the semi-developed countries have a greater probability and students from advanced countries have a lower probability than the Canadian born of being in special classes or programmes. Table 51 also indicates that students whose first language is not English have a lower probability of being in special classes than students whose first language is English: 2% lower for elementary students and 4% lower for secondary students. The interested reader may browse the other coefficients for some interesting if not unexpected results.

Colleges and Universities

This section looks at student enrollment in community college and university by programme or discipline. Table 52 gives some information for Ontario's community colleges. Note that because of data limitations the amount of immigrant use of these facilities is a lower bound due to

1974 Visa Status of C.A.A.T. Students from Ontario

	Canadian		Landed		Student		Total
	Citizen	%	Immigrant	%	Visa	%	
01 Accounting	852	85	62	6	23	2	1008
02 Business Management	4464	88	325	6	108	2	5095
03 Surveying	453	94	14	3	4	.8	480
04 Drafting	636	84	52	7	20	3	755
05 Data Processing	982	84	105	9	17	1	1163
06 Architectural Technology	753	88	58	6	14	2	856
07 Community Services	2191	90	77	3	7	.3	2426
08 Library Museum & Archives	365	94	21	5	0	0	387
09 Counselling	16	89	1	5	1	5	18
10 Engineering (Excl. Chem. Agri., Elec.)	1998	88	138	6	43	2	2268
12 Teaching	1576	93	51	3	1	.1	1703
13 Chemical/Biological Technology	783	80	117	12	12	1	973
14 Nursing	7515	93	310	4	5	.1	8085
15 Physical/Occupational Therapy	45	94	2	4	0	0	48
16 Medical/Dental Technology	2717	94	112	4	18	.6	2888
18 Fine & Applied Arts	1209	87	135	10	19	1	1397
19 Communication & Performing Arts	2180	94	73	3	8	.3	2331
20 Writing/Editing/Journalism	403	87	11	2	2	.4	461
21 Advertising	166	90	11	6	1	.5	184
22 Sports & Athletics	1029	93	20	2	4	.4	1108
23 Secretarial	3594	96	98	3	12	.3	3744
26 Clerical	325	91	9	3	3	.8	356
27 Resource Technology	199	96	9	4	0	0	208
28 Insurance/Real Estate/ Securities	110	95	6	5	0	0	116
29 Merchandising	1304	89	53	4	20	1	1459
30 Protective Services	814	97	14	2	0	0	839
31 Cooking & Baking	6	100	0	0	0	0	6
32 Hotel & Restaurant, Mgmt.	1232	85	85	6	27	2	1456
33 Funeral Directing & Embalming	67	94	0	0	0	0	71
39 Horticulture	214	92	4	2	0	0	233
40 Agriculture	53	96	1	2	1	2	55
42 Forestry	743	98	14	2	1	.1	758
44 Extractive Technology	322	98	4	1	1	.3	328
45 Food Processing Technology	64	83	6	8	4	5	77
46 Textiles	43	91	3	6	1	2	47
47 General Arts & Science	703	92	30	4	12	2	761
49 Welding	66	85	9	12	2	3	78
52 Electronics	1726	84	143	7	65	3	2063
53 Machining	104	86	5	4	9	7	121
55 Air Cond. & Refrigeration	147	80	15	8	16	9	183
56 Electricity	660	89	52	7	17	2	742
57 Communication Electronics	44	96	1	2	0	0	46
58 Cabinet Making	71	86	11	13	1	1	83
59 Garment Making	11	58	5	26	3	16	19
63 Rubber, Glass & Plastics	34	85	1	3	5	12	40
64 Automotive Trades	195	83	8	3	3	1	236
65 Community Planning	110	97	2	2	0	0	113
66 Aircraft Mechanics	177	96	3	2	0	0	185
67 Heavy Equip. & Indust. Machinery	136	94	4	3	0	0	145
69 Instrumentation	122	80	13	9	15	10	152
70 Manufacturing	105	89	6	5	6	5	118
71 Small Motor Repair	37	95	1	2	1	2	39
73 Excavating/Grading/Paving	388	93	15	4	7	2	417
84 Aviation	121	93	9	7	0	0	130
85 Marine Navigation	7	88	0	0	0	0	8
86 Marine Engineering	17	100	0	0	0	0	17
88 Transportation	43	91	3	6	0	0	47
89 Materials Handling & Mgmt.	18	86	2	10	0	0	21
90 Printing & Book Binding	654	87	68	9	22	3	756
91 Stationary Engineering	5	100	0	0	0	0	5
94 Motion Picture	92	73	4	3	0	0	126
96 Math. Comp'n.	18	95	1	5	0	0	19
98 Supervising	7	78	0	0	0	0	9
TOTAL	45231	90	2402	5	561	1	50066

the fact that the category of Canadian citizen includes of course immigrants. Only the contribution to enrollment of students with student visas or landed immigrant status is measured in this table. The general conclusion is that the size and number of facilities at community colleges are not influenced very much by landed immigrants or those on student visas. In 1974 at least, the percentage of the enrollment in total or by programme accounted for by these groups is small. Three other categories called "other", "unknown", and "unavailable" are not included in the table. Only in a few programmes is the percentage for landed immigrants and student visas together greater than or equal to 10%, namely drafting, data processing, counselling, chemical/biological technology, fine and applied arts, food processing technology, welding, electronics, machining, air conditioning and refrigeration, cabinet making, garment marketing, rubber-glass-plastics, instrumentation, manufacturing, materials handling; for many of these the percentage is 10% exactly. Only in garment making is the percentage large enough to make a significant difference if these foreign born students withdrew. But it must be mentioned again that these percentages are a lower limit with the foreign born percentage of enrollment somewhat higher. Something like the Every Student Survey for community colleges would be most enlightening.

Table 53 presents the overall picture at Ontario universities in the fall of 1974; again these percentages are lower bounds in that only landed immigrants and visa students enter the percentages with some of the category "Canadian citizens" being of course foreign born. As compared with the community colleges, landed immigrants and visas account for about two and one half times a larger percentage of enrollments, or 15% of the grand total. At the undergraduate level, 12% of

TABLE 53

Percentage of Enrollment Accounted for by Landed Immigrants
and Visa Students, Ontario Universities, 1974 (Fall)

	%
Undergraduate:	12
Full Time	13
Part Time	11
Graduate:	31
Full Time	38
Part Time	20
Grand Total	15

Source: Special tabulations of Statistics Canada.

students fall in this category while 31% of graduate students do the same. A larger percentage of full time than of part time students are landed immigrants or on visas with the graduate level leading for both full and part time. Around each of these percentages is a great range at the discipline or major field of study level.

Rather than present percentages for each field of study, Tables 54 and 55 group them into ranges of percentages with those with less than 10% of enrollment accounted for by landed immigrants or visas not being mentioned. Generalizations are difficult, but the medical fields occur in the top ranges of full time undergraduate and graduate. But at the graduate level, some social sciences and humanities also appear on the full time list in the 40-49% range or above. With 20% or less are such areas as religious education, counselling, music, social work, nursing. Some fields that are relatively low at the undergraduate level are not so low at the graduate level, such as economics, architecture, classics, philosophy, agriculture, and anthropology. In most respects these tables speak for themselves. A high percentage does not necessarily mean that Canadian born students are being excluded or that if these foreign students were removed that average cost of facilities would be reduced since education, especially graduate education, may be subject to economies of scale.

TABLE 54 - Cont'd.

PART TIME

10 - 19%	20 - 29%
Arts & Science (General)	Painting
Adult, Continuing Education	Photography
Art History	Engineering
Drama, Theatre	Applied Mathematics
Music	
Modern Languages & Lit.	
Philosophy	30 - 39%
Area Studies	
Commerce, Business	Library Science
Institutional Admin.	Law
Economics	Public Health
Man & Environment	Medical Technology
Social Work	
Biology	
Architecture	
Mathematics	
Chemistry	
Geology	
Physics	

Source: Special tabulations of Statistics Canada.

TABLE 55

Percentage Ranges of Enrollment Accounted for by Landed
Immigrants and Visa Students, Graduate,
Ontario, 1974

<u>FULL TIME</u>	
10 - 19%	20 - 29%
Religious Education	Continuing Education
Counselling & Guidance	Educational Psychology
Music	Educational Administration
Mass Media Studies	Philosophy of Education
Social Work	Drama, Theatre
Nursing	History
Rehabilitation Medicine	Library Science
	Commerce & Business
	Health Administration
	Man & Environment
	Psychology
	Biology
	Engineering Science
	Dentistry
	Basic Sciences Medicine
	Public Health
30 - 39%	40 - 49%
Curriculum Specialization	Special Education
Higher Education	Educational Testing
Educational Sociology	Religion
Art History	Anthropology
Modern Languages & Lit.	Economics
Geography	Linguistics
Political Science	Medical Specializations
Sociology	Mathematical Statistics
Biochemistry	Mathematics
Biophysics	Chemistry
Botany	
Zoology	
Forestry	
Medicine	
Surgery	
Pharmacy	
Geology	
Physics	
50 - 59%	60 - 69%
Classics	Educational Planning
Philosophy	Law
Area Studies	Applied Mathematics
Agriculture	
Engineering	
Paraclinical Studies	
	80 - 89%
	Architecture
	Metallurgy

TABLE 55 - Cont'd.

PART TIME

10 - 19%	20 - 29%
Continuing Education	Religious Education
Curriculum Specialization	Educational Testing
Special Education	Art History
Educational Psychology	Music
Educational Planning	Modern Languages & Lit.
Educational Sociology	Religion & Theology
Philosophy of Education	Translation
History	Economics
Library Science	Geography
Commerce & Business	Law
Health Administration	Linguistics
Political Science	Man & Environment
Social Work	Biology
Sociology	Botany
Zoology	Forestry
Dentistry	Public Health
	Geology
30 - 39%	40 - 49%
Classics	Physics
Philosophy	
Anthropology	
Area Studies	
Psychology	50 - 59%
Biochemistry	
Engineering	Drama, Theatre
Medicine	Engineering Science
Basic Sciences Medicine	Paraclinical Sciences
Applied Mathematics	
Mathematics	60 - 69%
Chemistry	
	Mathematical Statistics

Source: Special tabulations of Statistics Canada.

AppendixDevelopmental Background

Underdeveloped:	Antigua, Barbados, British Guiana, British West Indies, Granada, Guyana, Jamaica, Lesser Antilles, Trinidad, St. Vincent, China, Hong Kong, Malta, Brazil, Cyprus, Turkey, Kenya, Pakistan, Indonesia, Syria, Malaya, East Africa, Ethiopia, Tanyania, Jordan, Ghana, Rhodesia, Bolivia, Tangiers, unclassified (see Wright, #91, p. 55)
Semi-developed:	Italy, Poland, Greece, Cuba, Yugoslavia, Czechoslovakia, India, Hungary, Austria, Spain, Formosa, Taiwan, Korea, Venezuala, Phillipines, South Africa, Egypt, Uyuguay, Rumania, Singapore, Mexico, Serbia, Portugal
Advanced:	England, United States, Germany, Scotland, France, Ireland, Belgium, Australia, Argentina, Finland, Holland, Japan, Israel, Sweden, Denmark, Russia, Ukraine, New Zealand, Lithuania, Latvia, Switzerland

TABLE 8A.1

Special Classes Attended by Elementary School Students by Sex,
Birthplace, Mother Tongue, and Developmental Background (%)

Background Code	Grade 1-8	Special Class A	Special Class B	Total
1 - Male	92.51	4.60	2.89	100.00
1 - Female	95.07	3.24	1.69	100.00
2 - Male	95.33	3.08	1.60	100.00
2 - Female	97.68	1.59	.73	100.00
31 - Male	91.29	7.33	1.39	100.00
31 - Female	95.20	3.65	1.15	100.00
32 - Male	98.04	1.96	.00	100.00
32 - Female	92.59	2.47	4.94	100.00
33 - Male	95.28	2.36	2.36	100.00
33 - Female	97.80	1.04	1.16	100.00
41 - Male	90.08	1.65	8.27	100.00
41 - Female	92.04	1.00	6.97	100.00
42 - Male	86.58	5.75	7.67	100.00
42 - Female	90.64	3.28	6.09	100.00
43 - Male	95.85	1.66	2.49	100.00
43 - Female	97.83	1.09	1.09	100.00
Total - Male	92.24	4.33	3.43	100.00
Total - Female	95.02	2.76	2.22	100.00

Source: Special tabulations from Every Student Survey.

TABLE 8A.2
Programmes Attended by Secondary School Students by Sex,
Birthplace, Mother Tongue, and Developmental Background (%)

Background Code	Special Vocational	2 & 3 Year	4 Year A & S	4 Year B & C	4 Year St & T	5 Year A & S	5 Year B & C	5 Year St & T	Total
1 - Male	7.19	9.61	3.76	3.97	20.91	43.78	2.66	8.11	100.00
1 - Female	5.59	6.37	2.83	19.71	4.69	50.01	9.40	1.39	100.00
2 - Male	3.97	5.45	3.80	2.36	14.40	54.49	2.27	13.26	100.00
2 - Female	4.02	3.21	3.17	14.88	2.10	58.08	13.60	.94	100.00
31 - Male	12.73	12.73	4.66	2.80	16.77	36.96	2.17	11.18	100.00
31 - Female	6.71	14.13	2.83	15.90	4.59	40.99	13.78	1.06	100.00
32 - Male	5.11	9.66	5.11	2.84	34.66	26.70	3.41	12.50	100.00
32 - Female	2.70	10.81	4.05	39.19	5.41	20.27	14.86	2.70	100.00
33 - Male	3.08	4.21	4.21	3.57	22.85	45.38	3.57	13.13	100.00
33 - Female	2.32	4.22	4.85	18.57	6.33	55.49	7.81	.42	100.00
41 - Male	3.09	5.04	.98	1.46	19.51	50.73	2.44	16.75	100.00
41 - Female	3.36	6.50	2.24	19.06	.90	47.53	20.18	.22	100.00
42 - Male	10.45	13.53	2.29	2.99	26.49	26.24	2.68	15.33	100.00
42 - Female	10.54	16.91	1.66	25.67	1.95	26.12	16.38	.77	100.00
43 - Male	2.24	5.34	3.28	1.38	18.79	49.14	1.72	18.10	100.00
43 - Female	2.11	4.80	3.26	14.40	5.37	56.43	12.28	1.34	100.00
Total - Male	7.26	9.38	3.42	3.29	21.09	41.84	2.58	11.13	100.00
Total - Female	5.85	8.20	2.73	19.73	3.68	46.83	11.87	1.12	100.00

Source: Special tabulations from Every Student Survey.

Chapter IX

Utilization of Ontario's Health Services

Immigration and Utilization of Health Services

Immigrants being people utilize a certain level of health care whether they reside in Ontario or outside the province. A theory of utilization predicts that the greater is the level of population the greater is the level of utilization at any price for the good or service being provided. Therefore, if immigration increases so that net migration to Ontario also rises, the utilization of health services increases.

Two possible outcomes are now evident. If there is excess capacity in Ontario's health system, it will be unnecessary to shift resources into the system in order to meet this increased utilization. Existing human and non-human facilities will simply be used closer to full capacity. In this situation, the Ontario economy moves closer to the frontier of its production possibilities curve without having to sacrifice any non-health goods and services in order to have more health services; the economy was initially inside the frontier of available outputs because of the excess capacity. But assume now that Ontario starts off on the production possibilities frontier. The only way to meet the new immigrants' utilization of health services, with fixed resources and technology, is to shift resources from non-health production to the health sector; this involves some sacrifice of other goods and services so that the supply of health services can be increased.

The situation is more complicated than this because resources are not fixed with greater numbers of immigrants. The greater inflows mean more human resources for Ontario and perhaps more non-human resources as well; this was dealt with in some detail in Chapter II. As a result,

the production possibilities frontier shifts outwards making it possible to meet some of the new utilization for health services out of the new resources and so cutting down the number of resources which need to be transferred out of other uses. It is by no means certain that the extra supply of resources to the health field will be sufficient to meet the new utilization.

This problem of resource scarcity and allocation among competing wants applies within the health system itself as well. More immigrants may or may not mean a proportional shift in the utilization of all types of health services. They could, for example, shift the utilization for outpatient facilities more than for surgery. Given that more resources need to be devoted to health services with more immigration, it is then necessary to decide how to allocate them among the various health facilities: education, paramed, outpatient, doctors' services, x-ray, laboratory, etc. In the event that immigrants utilize more of one kind of health good than another, a proportional increase in resources to all services would be inefficient. Be that as it may, this question needs to be faced by the providers of health services and by the funders of these services.

Attention turns now to the question: do foreign born families have a greater propensity to utilize health services than the Canadian born?

Empirical Results

This section of the report examines the differential usage of health services which Ontario's immigrant population experiences. The following fields of health services are examined:

- 1) total payment for contract
- 2) number of patients serviced
- 3) number of paramed services

- 4) number of emergency visits
- 5) number of outpatient visits
- 6) number of diag-therapeutic procedures
- 7) number of visits to general practitioners
- 8) number of visits to specialists
- 9) instances of major surgery
- 10) instances of minor surgery
- 11) number of laboratory services
- 12) number of x-rays

The hypothesis examined is: the foreign born use less health services, all else the same, than the Canadian born. The skewing of the foreign born population to the lower and middle age groups suggests that their use of health services would be lower than the Canadian born. Also, some capital expenditure in the health care area service the aged, handicapped, and mentally ill which are underrepresented among the foreign born.

To test this hypothesis, one regression is run for each of the twelve fields mentioned above with the field being the dependent variable and the following set of binary independent variables representing explanatory effects:

- 1) geographical location -- Toronto core, Toronto middle and fringe, cities 100,00 plus, towns 10,000-90,000, populations less than 10,000; with Toronto core as control;
- 2) age -- less than 31, 31-39, 40-47, 48-57, 58-92; with less than 31 as control;
- 3) education -- less than high school, high school with no graduation, high school graduation, technical training, university; with less than high school as control;
- 4) income -- less than \$5,000, \$5,000-8,999, \$9,000-11,999, \$12,000-15,999, \$16,000 plus; with less than \$5,000 as control;

- 5) registrant's sex -- male, female; with male as control;
- 6) occupation -- managerial, natural and social sciences, medicine and health, clerical, sales, services, primary, processing and machinery, transportation; with managerial as control;
- 7) marital status -- single, married, divorced, separated, widowed; with single as control;
- 8) extent of coverage -- entire year, part of year; with entire year as control;
- 9) birthplace -- Canadian born, foreign born; with Canadian born as control.

Along with these binary variables, two other dependent variables are added:

- 1) number of persons covered by OHIP number;
- 2) number of persons under 12 years old.

A short comment on some of these variables is in order. The effect of income on the utilization of health services can not be predicted a priori. While higher income allows someone to bear any patient costs associated with health care, people with higher incomes may have better diets which may reduce their utilization of health services. More education may make people more aware of the existence and/or need for health care and so increase utilization of such facilities. This is true also if people derive increased welfare from future good health and education makes one more aware of this benefit (Sorkin, 27). In general, the association between age and usage of health services is positive since the likelihood of morbidity increases with age. Age is included as a binary variable rather than continuous since this association is likely non-linear. Gerald D. Rosenthal suggests that the household of a married person acts as a substitute facility for some medical services; it is expected that married persons will have lower usage than the other marital status groups (Ruchlin and Rogers, 82). It

is expected that persons in larger urban areas use more health services; there are tendencies for these services to set up together at the same location, and for the services to be more varied in larger centres. Also, there may be a greater supply of facilities per capita in larger cities thus increasing the facilities to implement health care. Sex, occupation, and period of coverage control for three other possible determinants; a priori considerations about the first two are difficult, although the processing and machining occupation by the nature of the work involved may be more prone to require health care than the others. If people practice what they preach, medicine and health occupations, all else the same, will have relatively high usage of medical services. Persons covered for the whole year should make more use of the health system than people covered for part of the year. The association with birthplace was discussed earlier in this section.

The data for the independent variables are derived from a survey undertaken by the Survey Research Centre, York University; the data are for registrants in the OHIP programme. The use here of cross-sectional data holds constant a number of factors like the state of technology which changes over time and affects the usage of health services. The figures were collected initially for two other researchers, Douglas McCready and Conrad Winn, for their study of health care in Ontario. The variable on birthplace was added to their data for the purposes of this section. The dependent variables are total expenditures or useage per OHIP number on some medical or hospital service; the data are from Ministry of Health records and they carried out all statistical procedures. While these operational definitions of demand are used extensively in similar studies for the United States (Sorkin), they have weaknesses. There may be variation in the price of the same service

received by different patients as in the case of regional price differences or special rates of people with disabilities. Also, specialists and general practitioners may charge different prices. Under Ontario's health scheme, the patient has no incentive, in many cases, to care about the size of the payment which the doctor requires from the Government. Except for a patient's initial contact with a doctor for some sickness or other reason, the patient often has no control over the utilization of health services; the doctor controls what the patient must do. Therefore, these dependent variables may measure more the doctor's directives than the patient's demand. Gregory Stoddart used episodes of medical service as a "better" measure of demand in a study for British Columbia (Stoddart, 69-80). While his variable is preferred, it has not been used here since the data problems are insurmountable in the short run.

The results written about here only refer to birthplace independent variable since McCready and Winn comment on the other variables elsewhere and a duplication is undesirable in a study of the foreign born population (McCready and Winn, 1976). First of all, for some regressions the F-statistic for the entire set of independent variables is insignificant at the 5% level; this indicates that the relationship between the dependent variable and all the independent variables together is only by chance, and should be disregarded. This happened for the following health services:

- 1) number of paramed services
- 2) number of outpatient visits
- 3) instances of major surgery

These three health services will not be referred to again.

Variable #9 in the list of binary independent variables is of interest here. In no case is the coefficient for this variable significant at the 5% level; so for the use of the health services studied, there is no difference in usage between the Canadian and foreign born, all else the same. Only one full regression result is presented: Table 56, total payment for contract. While the foreign born variable has the expected negative sign, it is insignificant at the 5% level. While not significant, the foreign born variable has the expected negative sign for the following services:

- 1) number of diag-therapeutic procedures
- 2) number of emergency visits
- 3) number of patients serviced
- 4) visits to specialists
- 5) number of x-rays

Even though there is no significant difference between Canadian and foreign born on the use made of health services, it is useful further to investigate the characteristics of the foreign born only which seem to lead them to increase their own usage of such facilities. To study this a regression is run for each of the twelve fields mentioned at the start of this chapter where all variables refer to only the foreign born. The regressions will not be presented and only the most salient points are noted.

In terms of geographical location, the foreign born living in towns with under 10,000 people show a significantly greater usage of general practitioners services than foreign born living in all other areas. For the same service, those living in cities outside of Toronto with 100,000 plus populations show a significantly greater usage than all other areas except towns under 10,000 persons. The same conclusion is also war-

TABLE 56

Total Payment for Contract

Variable	Coefficient	t-value
Constant	43.79	
Toronto, Middle, Fringe	-17.19	.58
Cities 100,000+	-15.81	.58
Towns 10,000-90,000	-18.80	.58
Pop. Less Than 10,000	-21.39	.72
Age 31-39	47.90	1.77*
40-47	64.39	2.17*
48-57	13.83	.46
58-92	25.08	.81
High School - No Graduation	7.15	.31
High School - Graduation	-15.43	.58
Technical Training	-14.30	.51
University	- 7.90	.22
Income \$5,000-8,999	17.47	.66
9,000-11,999	16.25	.57
12,000-15,999	-19.45	.66
16,000+	21.86	.64
Female Registrant	-31.83	1.16
Occupation - Natural & Soc. Sc.	-32.55	.97
- Medicine	116.23	2.10*
- Clerical	6.44	.17
- Sales	-22.66	.64
- Services	- 5.15	.13
- Primary	-56.75	1.24
- Processing	-19.48	.65
- Transport	-32.58	1.06
Marital Status - Married	78.35	2.28*
- Divorced	-46.71	.25
- Separated	48.10	.75
- Widowed	55.41	1.27
Part of Year	- 5.76	.32
Foreign Born	- 7.45	.38
Number Covered by OHIP No.	30.04	2.49*
Number Under Age 12	5.05	.38
R^2	.181	
Adjusted R^2	.131	
Sample Size	526	
F	3.51	

* Significant at 5% level.

ranted for the number of emergency visits. So the foreign born in small towns and large cities outside of Toronto use practitioners and emergency services to a greater extent than foreign born in other locations.

The regressions indicate that foreign born age 58 to 92 make significantly greater use of emergency and practitioners services than other age groups; in fact, there is no significant difference in the usage of any of the health services between any of other age groups. Only one occupation, namely medicine and health, show significantly greater usage of some services: specialists services, diag-therapeutic services; this occupation also has greater usage for the overall regression using total payment for contract as dependent variable.

Just as significant are the variables which did not matter. The foreign born showed no difference for males vs. females, for different types of marital status, or for levels of income. For policy on immigration and health service usage, the Government need not worry about differentiating migrants by sex, marital status, and income, or by age except for those over 58 years old (relatively few migrants anyway), and would like to locate immigrants in Toronto or cities between 10,000 and 90,000 populations.

Conclusion

Whatever else can be written about the determinants of the use of various health services which are provided by the Province of Ontario, it can not be shown that the foreign born have a higher level of use than the Canadian born. While a larger population increases the total use of health services, a larger population via immigration has not been shown to have any difference from a larger population via natural increase.

Chapter X

Summary and Conclusions

The view of the present report develops from the material in previous chapters which examine two related aspects of the immigration issue: 1) immigration and the labour supply; and 2) immigrant's usage of educational and health facilities. In terms of the model and perspective of Chapter II, this of course is incomplete; except for the simulation experiments, the immigrants' role as a demander of goods and services in the non-education, non-health areas is ignored from the empirical end. The immigrant as a taxpayer is mentioned but also the taxable contribution arising from one more Ontario immigrant is not calculated. These aside, the two aspects examined allow a number of firm conclusions to be made.

Most of the present policies that form Canadian immigration regulations can be traced back in time for a decade or more; these include discrimination by skill, age, and education, independent-sponsored categories, refugee policy, "guest" workers, and facility location. The Green Paper on Immigration stresses the need for cooperation between Ottawa and the provinces in this area; no where is this truer than in Ontario with its great attractiveness for immigrants, even those who initially reside in another part of Canada. Of course at the provincial level, "immigrants" in a broader framework include not only the foreign born but also those born in Canada who then migrate to Ontario. Immigration makes a major contribution to some sectors of Ontario's occupational structure. Ontario must help formulate and study any change in immigration policy by Ottawa. This does not imply an anti-Ottawa stance, but only that it must be examined by Ontario for the effects on that

stance, but only that it must be examined by Ontario for the effects on that province.

In a number of places throughout the study, the vitality of Ontario's labour market in adjusting to the immigrant inflow is seen. But this aspect is brought out most clearly in the chapter Three Years in Ontario. Immigrants to Ontario find it easier than those in other parts of Canada getting into an occupation that is closer to their intended occupation as early as six months after arrival even when their occupation has no demand. As time spent in Ontario increases, a growing percentage of immigrants who are not in their intended occupation list "chose different job" as a reason; an efficient labour market requires this kind of resource shifting which in no way is a problem. Along the same lines, the Ontario immigrant shows more job mobility in terms of job changes than immigrants in other parts of Canada; Ontario's immigrants are more likely to have held more than one job over their first three years in Canada than those in other parts of the country. Growth rates of average earnings are greater in Ontario for immigrants than in the rest of Canada; since some immigrants live initially in other provinces and then move to Ontario, perhaps attracted by this higher growth rate, thus raising Ontario's supply of labour, this attests to the vitality of labour demand in Ontario.

As well, immigrants definitely participate in Ontario's labour force, although not disproportionately to the Canadian born. Immigrants have only a slightly higher labour force participation rate than the Canadian born. The rate varies by both country of birth and time spent in Canada. Immigrants from the U.S., the U.K., and Eastern Europe have participation rates lower than both the average for all immigrants and for Ontario as a whole while high participation rates are associated

with immigrants born in Asia, Africa, and Latin America. For male immigrants their rate is not appreciably affected by time spent in Ontario, while for females, their rate falls with time spent in Ontario. No doubt due to greater job opportunities, there is a greater propensity for immigrant wives to work in Ontario than for Canadian immigrants as a whole.

In short, there is general evidence that Ontario's immigrants have been absorbed into the work force without direct action on the part of the government. One final piece of evidence is the fact that those immigrants in occupations with no demand reduce substantially their unemployment rate over the first three years in Ontario; this adjustment of labour markets is a key consideration when one speaks of limiting immigration into Canada. At least the Ontario market handles the general problem quite well, and this tends to diminish the need to devote too much time and resources to linking immigration with pre-arranged jobs.

Two areas of concern need to be expressed in the context of unemployment. First, the female immigrant to Ontario generally has a higher unemployment rate than Canadian female immigrants as a group. Perhaps more importantly, Ontario's female immigrants have a higher unemployment rate than the Canadian born labour force in the same province. In contrast, male immigrants have a lower unemployment rate than the Canadian born. Resources need to be devoted to solve this female unemployment problem in view of the resources lost if the situation continues. Second, immigrants of most recent arrival date have much higher unemployment rates than other immigrants. While this is a short run problem in that these initially high rates soon drop, a quicker adjustment is desirable. This does not usually require directly

linking immigration to jobs but instead improving job information, both in coverage and discrimination. It has been shown that even those immigrants with no prearranged job and in occupations with no demand adjust in no more than three years. Unemployment rates vary by birth-place with immigrants from the U.S. and Europe generally having lower rates than those from other parts of the world; the first groups also tend to have lower rates than the Canadian born.

Three Years in Ontario also looks at the interval between arrival in Canada and starting work. Immigrants to Ontario take longer to start working than those to other parts of Canada. This may be due to the greater range and number of job opportunities in Ontario; job search and job change are important to a developing and efficient economy. While minimizing the interval between arrival and work may be desirable if its cause is a lack of education and skills on the part of the immigrant, it is also desirable that immigrants be placed in their most efficient occupations. The question of why it takes longer must now be addressed. For the moment, one can be positive as well as negative about this finding.

The simulation results point to the same type of general conclusion about the ease of entry and absorption of immigrants into the Ontario economy. Recall that projections of some economic variables are made over eight quarters assuming certain values for net migration to Ontario; then net migration is reduced and assumptions are made about the employment distribution of these persons so taken away from Ontario's labour force; simulations are done again and compared with the first solution. Two policy conclusions are clear. First, there is in general no drastic effects either favourable or unfavourable from reducing net migration through immigration. In particular, unemployment rates should

not be counted on to fall if net migration is cut back. While the Canada-wide models reviewed in the study pointed to a rise in unemployment rates with greater immigration, an attempt was made to show that these results for Ontario are consistent with the ones for Canada. However, at the present study of modeling regional effects, the simulation results must be presented with humility. This oft-claimed effect forgets that migrants are demanders of goods and services as well as suppliers of labour and that reducing immigration does not prevent internal migration into Ontario. This latter comment is especially important when someone attempts to argue for some province or region that reducing immigration will have some effect. As the province with one of the highest if not the highest per capita income in Canada, Ontario is not just an attractive locale for immigrants but also for Canadians who happen to live in other provinces. Second, if some change in migration policy must be implemented, it seems best to concentrate the direct employment effects in manufacturing rather than construction and/or commercial services. These three occupations are studied because of the relatively large percentages of their work forces made up of immigrants.

In another set of tests, net migration and Ontario's fiscal policy change together; in the actual case, fiscal policy "tightens". The results indicate that since the change of fiscal policy influences the state of Ontario's economy the issue of how net migrations affects the economy may be confused if it is not recognized that two changes rather than one occurred. While Ontario's unemployment rate remains constant if net migration alone is reduced and the direct employment effect is on manufacturing, the rate rises when a "tighter" fiscal policy is added to the net migration change. Therefore, in assessing policy changes, all

contenders for the cause of these changes must be considered on their own merits. This makes economic control and policy making very difficult, but inappropriate decisions result from a failure to attempt this. In essence, this is no more than a plea to examine as many benefits and costs of immigration as possible within the constraints of resources, and to recognize that life is multi-dimensional and that events are multi-causal.

Since one of the benefits from more immigration is higher total earnings and a resultant higher aggregate demand, the factors which influence foreign and Canadian born earnings are investigated. First of all, the quantitative significance of various factors which affect earnings is different for the two groups; this justifies a separate study for each group. In general, the most important explanatory variables are occupation, education, age, labour force status, full or part time work, and marital status. Of special note is the fact that unemployment is much more detrimental to the earnings of the Canadian born than of the foreign born. Also, in terms of raising mean earnings, the payoff for fourteen or more years of education is almost 50% higher for the Canadian born than for the foreign born. The difference in earnings between age groups is also much larger for the Canadian born. If work experience is correlated with age, then the direct earnings effect of more work experience is less for the foreign born. These latter two possibilities are examined directly by estimating earnings elasticities for education and work experience for the Canadian and foreign born. For education, foreign born have consistently lower earnings elasticities than the Canadian born and for work experience, the foreign born have a lower elasticity only for less than six years of experience. This situation may result from labour market discrimina-

tion, failure to recognize foreign educational levels as equal to Canadian, or a different occupational mix of the foreign born which puts them in areas where the returns to education and work experience are relatively low.

Three occupational groups account for 38.71% of all immigrants in Ontario's labour force in 1971, namely clerical, service, and fabricating-assembling. Compared to the Canadian born, the immigrant labour force has a higher proportion in the natural sciences, service, processing, machining, fabricating, construction occupations. The Ontario female labour force whether Canadian or foreign born is more concentrated in a few occupations than the male labour force, namely clerical, sales, service, teaching, and medicine occupations. When looked at by birthplace, from sending regions, like Southern Europe, tend to concentrate their immigrants in a narrow range of occupations. Any reduction in immigration from these sending areas would affect labour supply in a small group of occupations whereas a cut back from other countries with a wider distribution would be felt more evenly and thus with possibly less significance over a wider range of occupations. This is an important consideration for an immigration policy which contemplates cutting back immigration from certain geographical areas, say by quotas, without looking at the labour market effects in detail. With some exceptions, immigrants tend to be represented only in certain occupations; they have made major contributions to the labour force and especially to some specific occupations.

Two social systems are examined in the report from the viewpoint of usage by the foreign born versus the Canadian born. At the elementary and secondary school level, this report expands on the useful work already done by Ed Wright and others at the Toronto Board of Education.

For elementary school children of immigrants, mother tongue is unimportant for immigrant children from the so-called advanced countries in determining whether or not they are found in grades one to eight rather than in special programmes, but it is important for those from other countries, i.e., having English as a first language raises the likelihood of being in grades one to eight. This is especially the case for children born in semi-developed countries. Disaggregating by sex shows that a large difference exists for those from the semi-developed countries between having or not having English as the first language. For secondary school children, once again those born in semi-developed countries, whether or not English is their first language, are more likely to be found in special or 2 and 3 year programmes than other foreign born students, and this is especially true within the group of foreign born students for which English is not their first language. In general and if being in grades one to eight or in the 5 year arts and science programme is "good", being born in an advanced country overcomes any difficulty which not have English as a first language entails. By the same measure, students born in underdeveloped countries do well compared to the foreign born from advanced countries, and especially so if English is not a first language. Students born in the semi-developed countries appear to have "problems" or are oriented differently.

Using Blishen's scale of occupations, there is a steady decline in the proportion of students found in the special classes as the scale rises; this is generally true for all developmental backgrounds, including students born in underdeveloped countries. As noted above, students born in semi-developed countries are less likely than those born elsewhere outside Canada to be in grades one to eight; this is true regardless of occupational scale.

At the community college level, the size and number of facilities are not influenced very much by landed immigrants or those on student visas; the percentage of enrollment in total or by programme accounted for by these groups is small. As compared with the community colleges, landed immigrants and visa students account for about two and one half times a larger percentage of enrollment at the universities in Ontario in 1974 (15% of total enrollment). At the undergraduate level, 12% of students fall in this category while 31% of graduate students do the same. Around each of these percentages is a great range at the discipline or major field of study level.

The material on hospital and other medical services compares the foreign born to the Canadian born with respect to usage over one year. The conclusion is easily reviewed: for a large number of medical services, the foreign born do not appear to have a higher or lower propensity for use than the Canadian born. While a larger population, all else the same, would raise the total usage of health services, the average usage would not rise or fall differentially by having more foreign born.

This chapter does not do full justice to all aspects of the research and so should not substitute for a complete reading of the report. This report looks at immigration with Ontario in mind and is not fully appreciative of the world-wide implications of the whole issue. There is always the complex issue of Ontario and Canada attracting skilled and educated immigrants from less developed countries, a policy which may be advantageous for Ontario but less so for the less developed countries. A world-wide perspective would take this effect into account as well, but is beyond the scope of this study, although it should be high on someone's research priority list.

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TABLE 19

Breakdown of Female Head's Total Earnings by Age,
Immigration Status, and Education, Ontario, 1973 (\$)

	Mean	Standard Deviation	Number
Age - 14 to 25:			
Canadian Born -	3498	2824	239
0 - 8 Years	1672	1972	11
9 - 13 Years	3250	2553	140
14+ Years	4123	3169	88
Arrived Before 1964 -	3228	3432	13
0 - 8 Years	--	--	--
9 - 13 Years	2389	1909	7
14+ Years	5528	4332	6
Arrived 1965 - 1974 -	2261	2330	33
0 - 8 Years	2909	1778	5
9 - 13 Years	2201	2434	18
14+ Years	2047	2533	10
Age - 26 to 45:			
Canadian Born -	4013	4251	240
0 - 8 Years	563	1378	37
9 - 13 Years	3689	3519	135
14+ Years	6532	5044	68
Arrived Before 1964 -	5348	4073	50
0 - 8 Years	2015	2276	7
9 - 13 Years	5550	3851	28
14+ Years	6526	4487	15
Arrived 1965 - 1974 -	4656	4068	46
0 - 8 Years	2212	2094	13
9 - 13 Years	4428	3207	21
14+ Years	7703	5189	12

TABLE 19 - Cont'd.

	Mean	Standard Deviation	Number
Age - 46 to 64:			
Canadian Born -	3424	4172	304
0 - 8 Years	1371	2076	102
9 - 13 Years	3641	3746	157
14+ Years	7319	5893	45
Arrived Before 1964 -	4211	5522	69
0 - 8 Years	1118	1981	29
9 - 13 Years	4715	4243	30
14+ Years	11665	8171	10
Arrived 1965 - 1974:	1931	2632	16
0 - 8 Years	961	1497	9
9 - 13 Years	2394	2856	6
14+ Years	7887	--	--
Age - 65 to 75:			
Canadian Born -	312	1004	219
0 - 8 Years	193	766	94
9 - 13 Years	316	962	92
14+ Years	638	1542	33
Arrived Before 1964 -	109	675	106
0 - 8 Years	0	0	68
9 - 13 Years	385	1242	30
14+ Years	0	0	8
Arrived 1965 - 1974 -	243	940	15
0 - 8 Years	0	0	12
9 - 13 Years	1213	2102	3
14+ Years	--	--	--

Source: Same as Table 16.

who arrived before 1964 lead the way with the Canadian born next and the most recent migrants last; but the small size of the sample for this latter group makes the results somewhat suspect. The migrant population once again does, relatively well from advanced education but the sample is small.

TABLE 4A.1

Proportion of Canadian and Foreign Born in Each Occupational Group
Relative to Proportion in Labour Force

Occupations	Canada	U.S.	U.K.	Northern- Western Europe	Southern Europe	Eastern Europe	Asia	Other
All Occupations	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Managerial, Administrative and Related	1.06	1.86	1.42	.83	.19	.69	.82	.82
Officials unique to government	1.13	.97	1.34	.54	.13	.47	.77	.69
Other Managers and Administrators	1.05	2.70	1.28	.86	.24	.90	.61	.56
Related Occupations	1.05	1.37	1.55	.86	.17	.57	1.00	1.03
Occupations in Natural Sciences	.87	1.34	1.86	1.36	.35	1.43	3.06	1.59
Engineering and Mathematics								
Physical Sciences	.89	1.61	1.66	1.27	.26	1.30	3.76	1.68
Life Sciences	.93	2.40	1.27	1.29	.24	1.19	4.03	1.40
Architects and Engineers	.81	1.25	2.16	1.36	.32	1.71	3.54	1.76
Other Occupations in Arch. and Eng.	.87	.75	1.79	1.52	.52	1.53	2.17	1.31
Mathematics, Statistics, Systems Analysis and Related	.95	2.15	1.70	1.08	.20	.69	2.50	1.82
Occupations in Social Sciences and Related	1.08	2.88	.84	.66	.15	.67	1.28	1.36
Social Sciences	1.01	3.97	1.20	.77	.11	.66	1.83	1.97
Social Work and Religion	1.05	3.22	1.22	.72	.19	.49	1.15	1.47
Law and Jurisprudence	1.18	1.67	.74	.44	.15	.68	.66	.52
Library, Museum and Archival Science	.99	2.89	1.26	.76	.05	1.27	2.36	2.02
Other	1.11	3.14	.87	.83	.12	.51	1.05	1.16
Occupations in Religion	1.01	4.54	1.29	.88	.31	.83	.71	.52
Teaching and Related	1.09	2.23	.97	.79	.20	.53	1.20	1.35
University and Related	.71	10.00	1.67	1.02	.24	1.26	4.94	2.62
Elementary, Secondary and Related	1.15	1.34	.82	.75	.18	.40	.77	1.25
Other	1.01	2.52	1.40	.90	.28	.79	1.38	1.18
Occupations in Medicine and Health	.99	1.11	1.04	.98	.24	.91	3.18	2.88
Health, Diagnosing and Treating	.94	1.69	1.15	.69	.24	1.70	3.91	2.89
Nursing, Therapy and Related Assisting Occ.	1.01	1.01	1.03	.99	.23	.67	2.87	3.11
Other	.94	1.08	1.00	1.15	.29	1.35	3.93	1.92
Artistic, Literary, Recreational and Related	.97	2.49	1.53	1.17	.39	.97	.79	1.14
Fine, Commerical Art, Photography & Related	.84	2.12	1.77	1.74	.60	1.60	1.26	1.27
Performing and Audio-Visual	1.04	4.03	1.29	.57	.26	.57	.42	1.49
Writing	.95	2.59	1.36	1.19	.22	.74	.78	1.18
Sport and Recreation	.90	1.01	.67	.55	.27	.33	.20	.23
Clerical and Related	1.07	1.01	1.26	.79	.37	.54	.94	1.33
Stenography and Typing	1.07	1.13	1.31	.78	.32	.33	1.05	1.58
Bookkeeping, Account Recording and Related	1.06	.92	1.24	.89	.39	.65	.89	1.22
Office Machine, Electronic Data, Processing Equipment Operations	.98	.95	1.35	.97	.43	.70	2.13	2.46
Material Recording, Scheduling and Distributing Occupations	1.04	.81	1.21	.84	.68	.81	.69	1.14
Library, File and Correspondence	1.02	1.65	1.44	.71	.28	.60	1.63	2.28
Reception, Information, Mail and Message Distribution	1.13	.96	1.22	.53	.43	.40	.63	.95
Other	1.09	1.10	1.25	.76	.26	.53	.82	1.12
Sales Occupations	1.07	1.16	1.09	.91	.48	.91	.72	.62
Commodities	1.07	1.11	1.07	.90	.48	.93	.72	.58
Services	1.03	1.55	1.24	1.01	.47	.89	.84	.91
Other	1.12	.99	.85	.82	.63	.64	.32	.38
Service Occupations	.91	.82	1.01	.99	1.63	1.27	1.46	1.03
Protective Services	1.15	.69	1.29	.53	.13	.43	.33	.53
Food, Beverage Prep. and Related	.90	.84	.81	1.02	1.72	1.05	3.31	1.04
Lodging and Related	.85	1.85	.84	1.22	1.59	2.24	1.05	1.22
Personal Services	.90	.96	.98	1.35	1.62	.93	.54	1.86
Apparel and Furnishing	.76	.60	.73	.59	3.26	1.68	2.76	.80
Other	.80	.65	1.10	1.09	2.33	1.93	.80	.92

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Errata

After this working paper went to press some necessary corrections were brought to the author's attention and as a result the following changes should be made:

1. Insert new pages 95-96.
2. Insert new pages 97-98 (Pages 99-102 (Table 20) now been deleted for reasons of confidentiality).
3. The citation for Tables 16 to 19 and Tables 4A.6, 4A.7 should read as follows: Statistics Canada, Survey of Consumer Finance Census Family Tape for Income, 1973.

The reader should also be aware of the following facts:

1. In Tables 16 to 19 inclusive, Tables 4A.6 and 4A.7 and Chapter V, incomes of immigrants who arrived in Canada during 1973 or 1974 represent their Canadian income only; this must be kept in mind as it imparts some bias to the results.
2. In Tables 18, 19 and 4A.7 there are some figures which are based on only a few observations. These cases must be interpreted cautiously.
3. Table 20 (as noted above) and Table 4A.8 have been removed for reasons of confidentiality.

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